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A
WEEKLY SOUTHERN INDUSTRIAL
RAILROAD AND FINANCIAL NEWSPAPER.

TWENTY YEARS OF SOUTHERN PROGRESS.

No. 5.

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New England and Middle States had..... 9510 miles.

1850 to 1860 the South expended \$220,000,000 in the extension of
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1860—South had one railroad mile to every 700 whites.
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1880—Total mileage in the South..... 20,612
Total mileage in rest of country..... 71,684

1901—Total mileage in the South..... 54,124
Total mileage in rest of country..... 144,663

South increased in railroad building from
1880 to 1901.....162%

South invested in railroad building from
1880 to 1901.....\$1,500,000,000

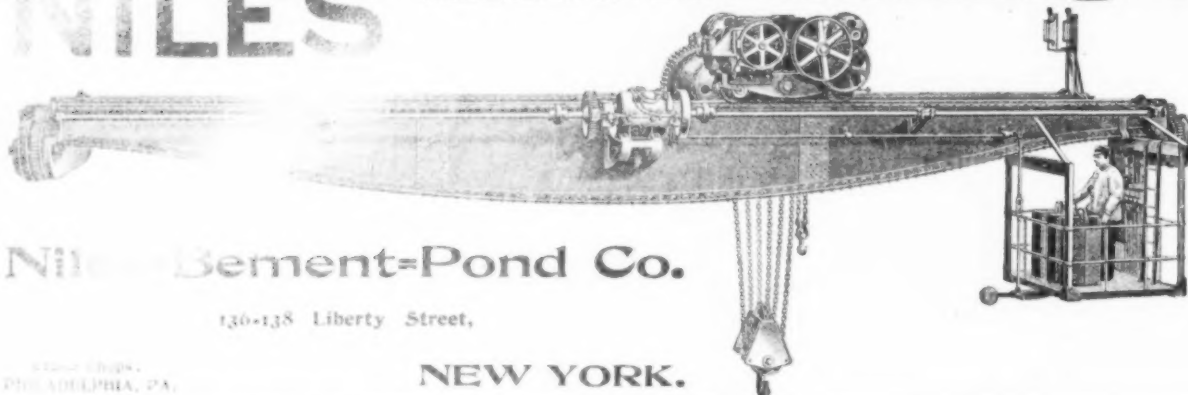
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No. 5.

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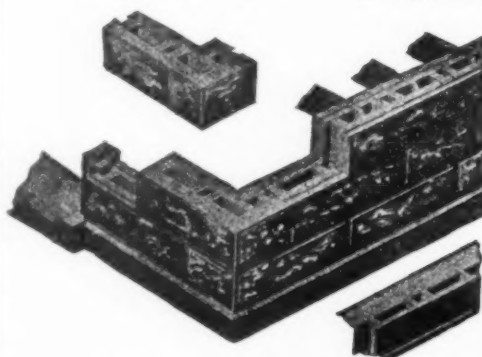
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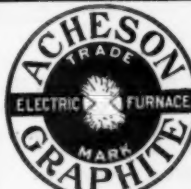
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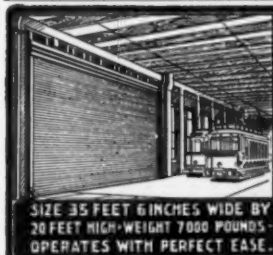
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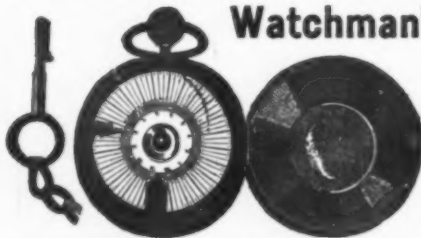
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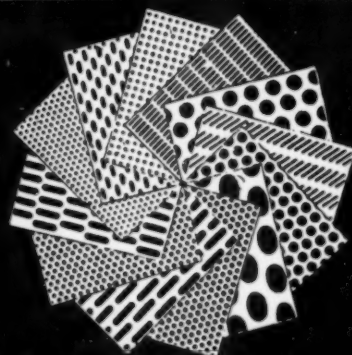
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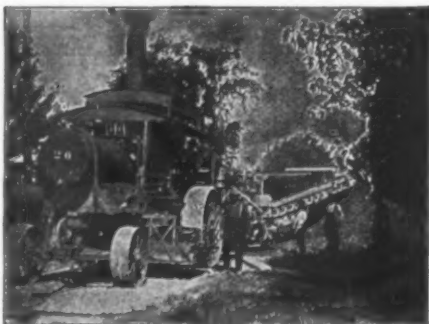
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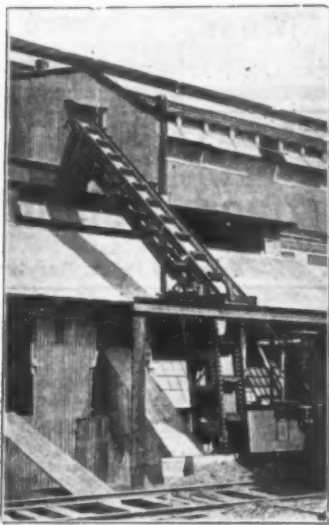
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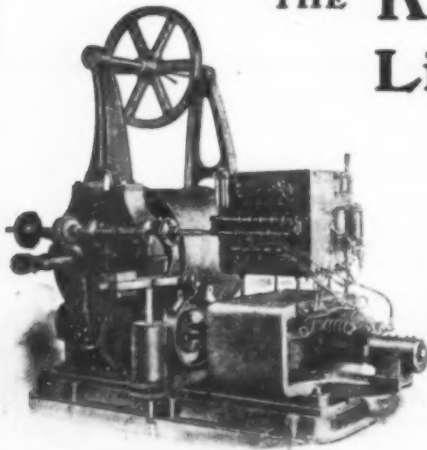
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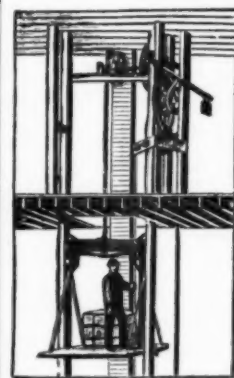
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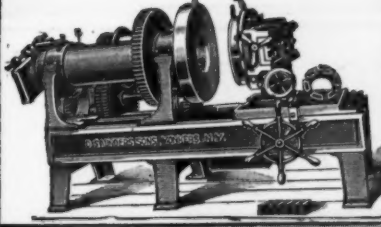
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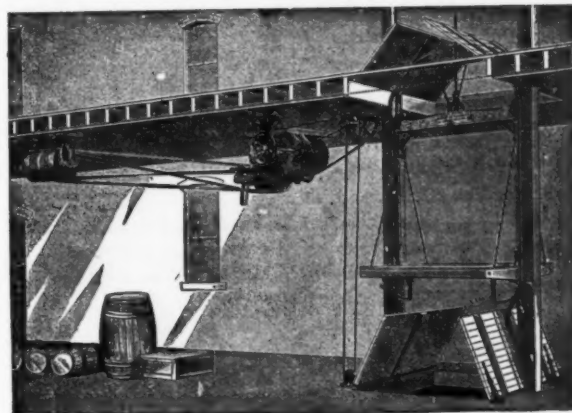
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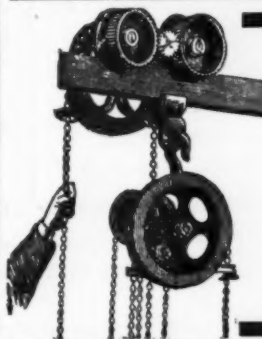
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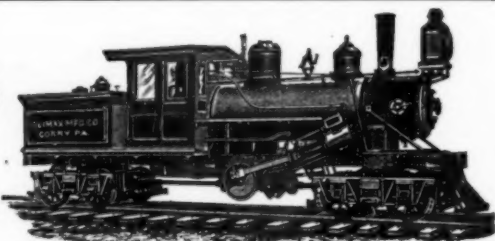
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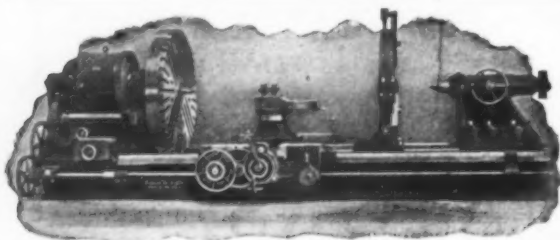
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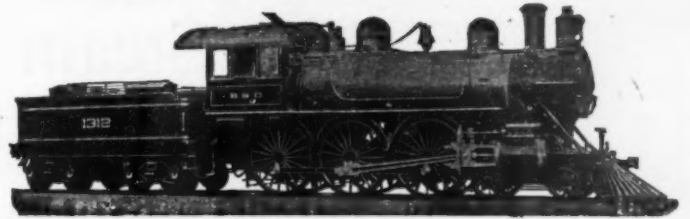
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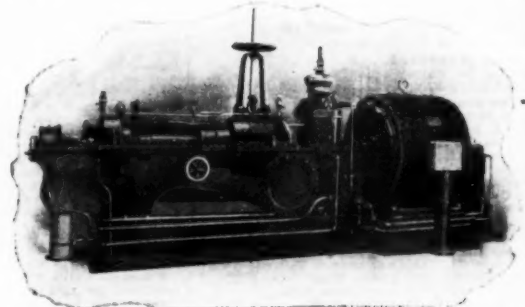
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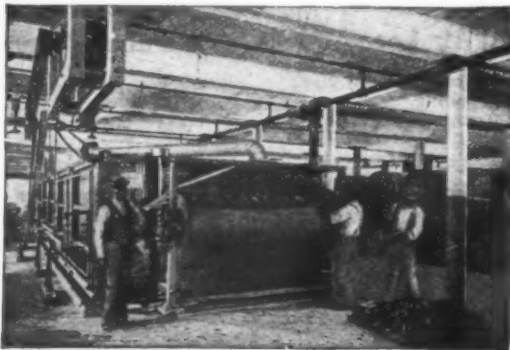
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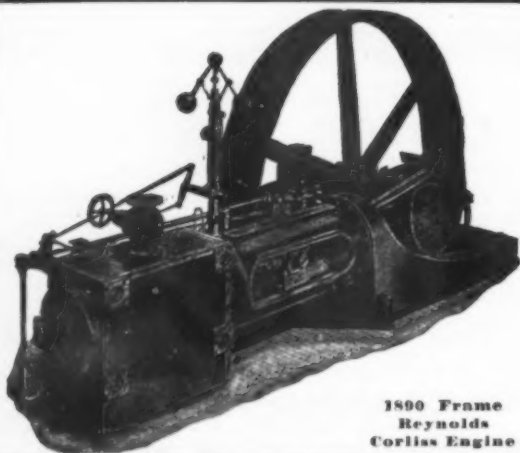
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 McKenna, David, Slattington, Pa.

Roofing and Siding. (Metal.)
 Cortright Metal Roofing Co., Philadelphia, Pa.
 Downman-Doxier Mfg. Co., Atlanta, Ga.
 Merchant & Co., Inc., Philadelphia, Pa.
 Scaife, Wm. B., & Sons Co., Pittsburg, Pa.
 Simpers, Thos. W., & Co., Philadelphia, Pa.
 Virginia Bridge & Iron Co., Roanoke, Va.

Ropes. (Transmission.)
 American Mfg. Co., The, New York, N. Y.
 Broderick & Bascom Rope Co., St. Louis, Mo.
 Caldwell, W. E., Co., Louisville, Ky.
 Columbian Cordage Co., Auburn, N. Y.
 Cresson Co., Geo. V., New York, N. Y.
 Durable Wire Rope Co., Boston, Mass.
 Hunt Co., C. W., West Brighton, N. Y.
 Ironsides Co., Columbus, O.
 Link-Belt Engineering Co., Philadelphia, Pa.
 Woods' Sons, T. B., Chambersburg, Pa.

Rubber Goods.
 Boston Belting Co., Boston, Mass.
 Eureka Fire Hose Co., New York, N. Y.
 New Jersey Car Spring & Rubber Co., Jersey City, N. J.
 Voorhees Rubber Mfg. Co., Jersey City, N. J.

Sacks. (Fertilizer.)
 Bailey, John T., & Co., Philadelphia, Pa.

Safety Water Columns and Gauges.
 Amer. Steam Gauge & Valve Mfg. Co., Jam. Plain, Mass.
 Crosby Steam Gauge & Valve Co., Boston, Mass.
 Lunkenheimer Co., Cincinnati, O.
 Reliance Gauge Column Co., Cleveland, O.

Safes and Vaults.
 York Safe & Lock Co., York, Pa.

Sand and Gravel. (For Filtering Water.)
 Diamond Rock Sand Co., Phila., Pa.

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 Atkins, E. C., & Co., Indianapolis, Ind.
 Fay, J. A., & Egan Co., Cincinnati, O.
 Smith, H. B., Machine Co., Smithville, N. J.

Saw Gunner.
 Miller Oil & Supply Co., Indianapolis, Ind.

Saws. [See Woodworking Machinery.]
 Atkins, E. C., & Co., Indianapolis, Ind.
 Gibbs, W. H., & Co., Columbia, S. C.
 Huther Bros., Rochester, N. Y.
 Miller Oil & Supply Co., Indianapolis, Ind.
 Smith, H. B., Machine Co., Smithville, N. J.

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 Bailey-Lebby Co., The, Charleston, S. C.
 Beach, H. W., Montrose, Pa.
 Cameron & Barkley Co., Charleston, S. C.
 Chattanooga Machinery Co., Chattanooga, Tenn.
 Columbia Supply Co., Columbia, S. C.
 DeLoach Mill Mfg. Co., Atlanta, Ga.
 Farquhar Co., A. B., Ltd., York, Pa.
 Fay, J. A., & Egan Co., Cincinnati, O.
 Frick Co., Waynesboro, Pa.
 Gibbs, W. H., & Co., Columbia, S. C.
 Hartfelder-Garbutt Co., Savannah, Ga.
 Hench & Dromgold Co., York, Pa.
 Hill, Wm. E., & Co., Kalamazoo, Mich.
 Lane Mfg. Co., Montpelier, Vt.
 Mecklenburg Iron Works, Charlotte, N. C.
 Schofield's, J. S., Sons Co., Macon, Ga.
 Smith, H. B., Machine Co., Smithville, N. J.
 Soule Steam Feed Works, Meridian, Miss.
 Southern Eng. & Boiler Works, Jackson, Tenn.
 Union Iron Works Co., Selma, Ala.
 Zelnicker, W. A., Supply Co., St. Louis, Mo.

Saw Sharpeners and Files. (Cotton Gin.)
 Carver Cotton Gin Co., East Bridgewater, Mass.

Scales.
 McDonald Bros., Pleasant Hill, Mo.
 Osgood Scale Co., Binghamton, N. Y.
 Richardson Scale Co., New York, N. Y.
 Standard Scale & Supply Co., Ltd., Pittsburg, Pa.

Scales. (Automatic.)
 Richardson Scale Co., New York, N. Y.

Scrap Iron and Steel.
 May & Spaulding, Atlanta, Ga.
 Cohen-Schwartz Rail & Steel Co., St. Louis, Mo.

Screens. (Fly, Window and Door.)
 Burrows, E. T., Co., Portland, Me.
 New Jersey Wire Cloth Co., Trenton, N. J.

Screens. (Wire, Coke, etc.)
 Atchison, E., Perforated Metal Co., Chicago, Ill.
 Beckley, A. J., Co., Garwood, N. J.
 Cresson Co., Geo. V., New York, N. Y.
 Harrington & King Perforating Co., Chicago, Ill.
 Hendrick Mfg. Co., Ltd., Lombard, Pa.
 Jeffrey Mfg. Co., The, Columbus, O.
 Ludlow-Saylor Wire Co., The, St. Louis, Mo.
 New Jersey Wire Cloth Co., Trenton, N. J.
 Meyers Mfg. Co., Fred. J., Hamilton, O.
 Mundt & Sons, Newark, New York, N. Y.
 McLanahan-Stone Machine Co., Hollidaysburg, Pa.
 Wisconsin Iron & Wire Works, Milwaukee, Wis.

Screw Plates.
 Polk, A. J., & Son, Millersburg, Pa.

Screw Saws. [See Woodworking Machinery.]
 Fay, J. A., & Egan Co., Cincinnati, O.
 Smith, H. B., Machine Co., Smithville, N. J.

Seals. (Stock Certificates, etc.)
 Middleton, J. W., Chicago, Ill.
 National Seal Works, Richmond, Va.

Separators. (Dust.)
 Allington & Curtis Mfg. Co., Baginaw, Mich.
 Dixie Mfg. Co., Baltimore, Md.
 Sturtevant Co., B. F., Boston, Mass.

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 Bates Machine Co., Joliet, Ill.
 Scranton Steam Pump Co., Scranton, Pa.
 Webster & Co., Warren, Philadelphia, Pa.

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 Bailey-Lebby Co., Charleston, S. C.
 Baird Mch. Co., Pittsburg, Pa.
 Waikes, Henry Co., Norfolk, Va.

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 Pike Mfg. Co., Pike Station, N. H.
 Vitrified Wheel Co., Westfield, Mass.

Sheet Steel and Iron.
 Bourne-Fuller Co., Cleveland, O.
 Simpers, Thos. W., & Co., Philadelphia, Pa.
 Taylor, N. & G., Co., Philadelphia, Pa.

Shingles. (Metal.)
 Chattanooga Roof & Fdry. Co., Chattanooga, Tenn.
 Cortright Metal Roofing Co., Philadelphia, Pa.
 Merchant & Co., Inc., Philadelphia, Pa.
 Montrose Metal Shingle Co., Camden, N. J.
 Penn Metal Ceiling & Roofing Co., Phila., Pa.

Ship Builders. (Iron and Steel.)
 Baltimore Shipbuilding & Dry Dock Co., Balto., Md.
 Newport News Shipbuilding & Dry Dock Co., Newport News, Va.

Shutters. (Steel Rolling.)
 Kinneer Mfg. Co., Columbus, O.

Skylights.
 Chattanooga Roof & Fdry. Co., Chattanooga, Tenn.
 Downman-Doxier Mfg. Co., Atlanta, Ga.
 Merchant & Co., Inc., Philadelphia, Pa.
 Van Noorden, E. Co., Boston, Mass.

Slate. (Roofing.)
 Galt, John, & Sons, New York, N. Y.
 Genuine Bangor Slate Co., Easton, Pa.
 McKenna, David, Slattington, Pa.

Slaters' Tools.
 Galt, John, & Sons, New York, N. Y.

Smoke Stacks. (Iron and Steel.)
 Birmingham Boiler Works, Birmingham, Ala.
 Girard Boiler & Mfg. Co., Girard, O.
 Keeler, E. Co., Williamsport, Pa.
 Lombard Iron Works & Supply Co., Augusta, Ga.
 Petroleum Iron Works Co., Washington, Pa.
 Schofield's, J. S., Sons Co., Macon, Ga.

Solder.
 Hierts, Theo., Metal Co., St. Louis, Mo.
 Ryan, J. J., & Co., Chicago, Ill.

Spanning Tubes.
 Electrical Material Co., Baltimore, Md.

Spelter.
 Hierts, Theo., Metal Co., St. Louis, Mo.

Spikes.
 The Diamond State Steel Co., Wilmington, Del.

Springs. (Bicycle Saddle, Machinery, Railway Spiral.)
 Boston Belting Co., Boston, Mass.
 Cary Spring Works, New York, N. Y.
 Ludlow-Saylor Wire Co., The, St. Louis, Mo.

Sprinklers. (Automatic.)
 Bailey-Lebby Co., Charleston, S. C.
 General Fire Extinguisher Co., Providence, R. I.

Stamp Mills.
 Gainesville Iron Works, Gainesville, Ga.
 Mecklenburg Iron Works, Charlotte, N. C.

Standpipes.
 Birmingham Boiler Works, Birmingham, Ala.
 Girard Boiler & Mfg. Co., Girard, O.
 Hartley Boiler Works, Montgomery, Ala.
 Keeler Co., E., Williamsport, Pa.
 Lombard Iron Works & Supply Co., Augusta, Ga.
 Means & Fulton Iron Works, Birmingham, Ala.
 Petroleum Iron Works Co., Washington, Pa.
 Virginia Bridge & Iron Co., Roanoke, Va.

Steam Fitters Supplies.
 General Fire Extinguisher Co., Providence, R. I.
 Hatfield, H. E., & Co., New York, N. Y.
 McWilliams, Jos., & Co., Louisville, Ky.
 Simmons, John, Co., New York City.

Steam Gages.
 American Steam Gauge & Valve Mfg. Co., Jamaica Plain, Mass.
 Crosby Steam Gauge & Valve Co., Boston, Mass.
 Lunkenheimer Co., Cincinnati, O.

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 General Fire Extinguisher Co., Providence, R. I.
 Keeler, E. Co., Williamsport, Pa.
 Peck-Hammond Co., The, Cincinnati, O.
 Tompkins, D. A., Co., Charlotte, S. C.

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Steam Traps.
 American Blower Co., Detroit, Mich.
 Haines, W. B., Co., Phila., Pa.
 Sturtevant Co., B. F., Boston, Mass.

Steamship Lines.
 Baltimore Steam Packet Co., Baltimore, Md.
 Chesapeake Steamship Co., Baltimore, Md.
 Detroit & Buffalo Steamship Co., Detroit, Mich.
 Merchants & Miners' Trans. Co., Baltimore, Md.

Steel. (Manufacturers of.)
 American Sheet Steel Co., New York, N. Y.
 Bourne-Fuller Co., Cleveland, O.
 Chester Steel Castings Co., Philadelphia, Pa.
 Kennedy, Walter, Pittsburg, Pa.
 Taylor, N. & G., Co., Philadelphia, Pa.
 The Diamond State Steel Co., Wilmington, Del.

Steel Buildings. (Designers, Builders.)
 Frink & Hazen, Baltimore, Md.
 General Supply & Construction Co., New York, N. Y.
 Scaife, Wm. B., & Sons Co., Pittsburg, Pa.
 Schreiber, L., & Sons Co., The, Cincinnati, O.
 Va. Bridge & Iron Co., Roanoke, Va.

Steel Couplers. (Automatic.)
 Latrobe Steel & Coupler Co., Philadelphia, Pa.

Stills. (Turpentine.)
 McMillan Bros. Co., Mobile, Ala.

Stock Certificates. (BONDS AND SEALS.)
 Middleton, J. W., Chicago, Ill.
 Myers Printing House, New Orleans, La.
 National Seal Works, Richmond, Va.

Stokers. (Mechanical.)
 Westinghouse, Church, Kerr & Co., Pittsburg, Pa.
 Westinghouse Machine Co., Pittsburg, Pa.

Storage Receipts.
 Baltimore Fidelity Warehouse Co., Baltimore, Md.

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 Belmont Iron Works, Philadelphia, Pa.
 Bourne-Fuller Co., Cleveland, O.
 Chesapeake Iron Works, Baltimore, Md.
 Eureka Supply Co., Chattanooga, Tenn.
 General Supply & Construction Co., New York, N. Y.
 Girard Boiler & Mfg. Co., Girard, O.
 Scaife, Wm. B., & Sons Co., Pittsburg, Pa.
 Schreiber, L., & Sons Co., The, Cincinnati, O.
 Simpers, Thos. W., & Co., Philadelphia, Pa.
 Virginia Bridge & Iron Co., Roanoke, Va.
 Wisconsin Iron & Wire Works, Milwaukee, Wis.

Switchboards, Switches, etc.
 Electrical Material Co., Baltimore, Md.
 Standard Electric Co., Norfolk, Va.
 Western Electrical Supply Co., St. Louis, Mo.
 Westinghouse Electric & Mfg. Co., Pittsburg, Pa.

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 Birmingham Boiler Works, Birmingham, Ala.
 Caldwell, W. E., Co., Louisville, Ky.
 Flint & Walling Mfg. Co., Kendallville, Ind.
 Girard Boiler & Mfg. Co., Girard, O.
 Hammond Iron Works, Warren, Pa.
 Harry Bros. Co., Dallas, Tex.
 Hartley Boiler Works, Montgomery, Ala.
 Keeler Co., E., Williamsport, Pa.
 Lombard Iron Works & Supply Co., Augusta, Ga.
 Means & Fulton Iron Works, Birmingham, Ala.
 Petroleum Iron Works Co., Washington, Pa.
 Scaife, W. B., & Sons Co., Pittsburg, Pa.
 Schofield's, J. S., Sons Co., Macon, Ga.
 Smith Co., S. Morgan, York, Pa.
 Tallyard Steel Pipe & Tank Co., Waterloo, Ia.
 Tompkins, D. A., Co., Charlotte, N. C.

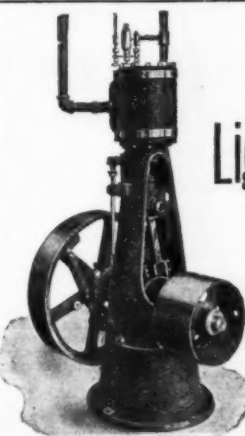


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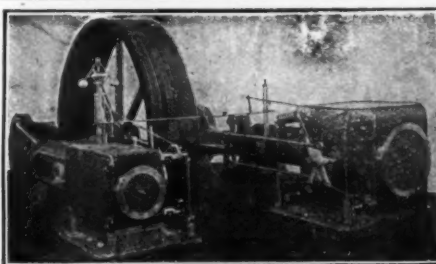
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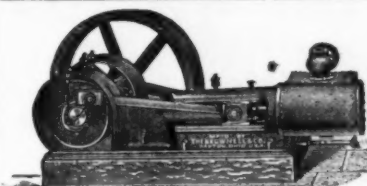


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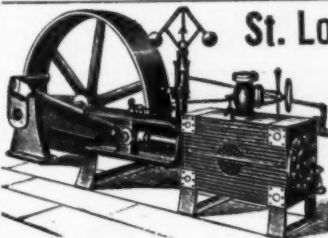
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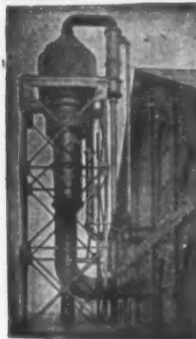
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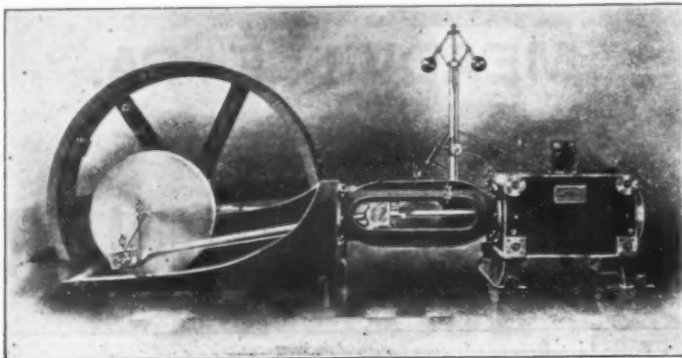
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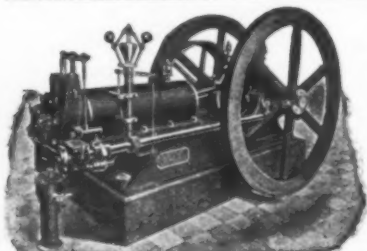
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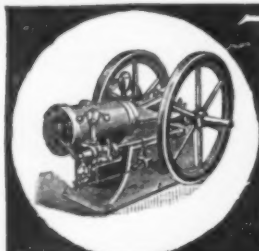
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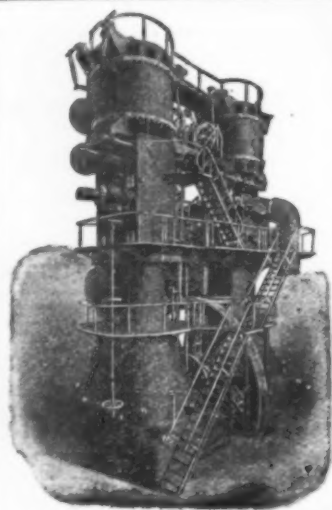


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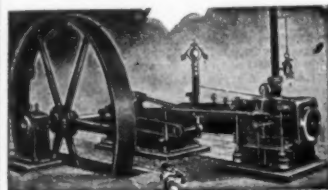


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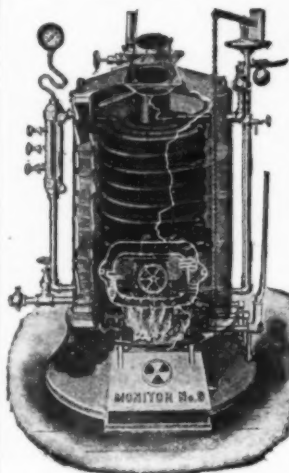
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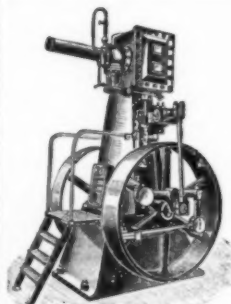
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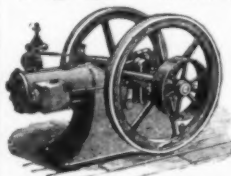
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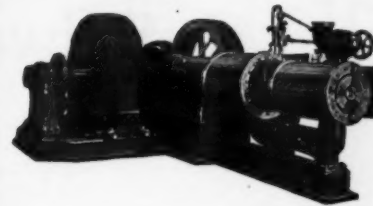
MACHINERY

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Valk & Murdoch Iron Works, Charleston, S. C.
Virginia Bridge & Iron Co., Roanoke, Va.
Wood, E. D. & Co., Phila., Pa.
Tanks. (Wood.)
Caldwell Co., W. E., Louisville, Ky.
Cypress Lumber Co., Apalachicola, Fla.
Davis, G. M. & Son, Palatka, Fla.
Lewis, H. F. & Co., Ltd., New Orleans, La.
Tupelo Tank Co., Mobile, Ala.
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Electric Supply Co., Savannah, Ga.
Electrical Material Co., Baltimore, Md.
Piedmont Electric Co., Asheville, N. C.
Standard Electric Co., Norfolk, Va.
Western Electrical Supply Co., St. Louis, Mo.
Telephone Poles.
Electrical Material Co., Baltimore, Md.
Houston & Liggett, Louisville, Tenn.
International Cerecoting & Const. Co., Galveston, Tex.
Terra Cotta.
Merchants & Co. Inc., Philadelphia, Pa.
Stimpers, Thos. W. & Co., Philadelphia, Pa.
Taylor, N. & G. Co., Philadelphia, Pa.
Terra Cotta.
Pomona Terra Cotta Co., Pomona, N. C.
Stevens, H. & Sons, Macon, Ga.
Textile Machinery. (See Cotton Mill Mach.)
Threshers.
Farquhar, A. B. Co., York, Pa.
Cardwell Machine Co., Richmond, Va.
Tim. (Roofing.)
American Tinsplate Co., New York, N. Y.
Taylor, N. & G. Co., Philadelphia, Pa.
Tinsplate.
American Tinsplate Co., New York, N. Y.
Merchant & Co. Inc., Philadelphia, Pa.
Stimpers, Thos. W. & Co., Philadelphia, Pa.
Taylor, N. & G. Co., Philadelphia, Pa.
Tires, Steel. (Locomotive and Car.)
Latrobe Steel Co., Philadelphia, Pa.
Tobacco Machinery.
Buckeye Iron & Brass Works, Dayton, O.
Cardwell Machine Co., Richmond, Va.
Tools. (Machine.) (See Machine Tools.)
Tools. (Machinists.)
Barnes, W. F. & John Co., Rockford, Ill.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Folk, A. J. & Son, Millersburg, Pa.
Pratt & Whitney Co., Hartford, Conn.
Tools. (Pneumatic.)
Band Drill Co., New York, N. Y.
Tools. (Tinner's.)
Niagara Machine & Tool Works, Buffalo, N. Y.
Tools. (For Ery. Rep. Shops.) (See Port. Tools.)
Torches.
Gem Mfg. Co., Pittsburg, Pa.
Wail, P. Mfg. Co., Allegheny, Pa.
Towers. (Steel and Wood.)
Caldwell Co., W. E., Louisville, Ky.
Flint & Walling Mfg. Co., Kendallville, Ind.
Tompkins, D. A. Co., Charlotte, N. C.
Tramway. (Overhead.)
Cohoes Iron Foundry & Machine Co., Cohoes, N. Y.
Moyer, J. W. & Co., Philadelphia, Pa.
New Jersey Ery. & Mch. Co., New York, N. Y.
Speidel, J. G., Reading, Pa.
Tramway. (Wire Rope.)
Broderick & Bascom Rope Co., St. Louis, Mo.
Caldwell, H. W. & Sons Co., Chicago, Ill.
Cresson Co., George V., New York, N. Y.
Flory, S. Mfg. Co., Bangor, Pa.
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Jeffrey Mfg. Co., Columbus, O.
Lidgerwood Mfg. Co., New York, N. Y.
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McLanahan-Stone Machine Co., Hollidaysburg, Pa.
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Hornor, W. F. Mfg. Co., Danville, Va.
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Gem Mfg. Co., Pittsburg, Pa.
Tubing.
Ludlow-Saylor Wire Co., The, St. Louis, Mo.
Tubing. (Seamless, Brass, Copper & Brased.)
Waterbury Brass Co., New York, N. Y.
Turbines. (See Water Wheels.)
Turbines. (Steam.)
Westinghouse, Church, Kerr & Co., Pittsburg, Pa.
Westinghouse Machine Co., Pittsburg, Pa.
Turntables.
Koppel, Arthur, New York City.
Malco Co., Cincinnati, O.
Virginia Bridge & Iron Co., Roanoke, Va.
Typewriters.
Pittsburg Writing Machine Co., Pittsburg, Pa.
Smith-Premier Typewriter Co., Baltimore, Md.
Typewriter Table Cabinets.
Dearborn Desk Co., Birmingham, Ala.
Valves.
Amer. Steam Gauge & Valve Mfg. Co., Jam. Plain, Mass.
Boston Belting Co., Boston, Mass.
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Crosby Steam Gauge & Valve Co., Boston, Mass.
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Ludlow Valve Mfg. Co., Troy, N. Y.
Lunkenheimer Co., Cincinnati, O.
Simmons, John Co., New York City.
Vorhees Rubber Mfg. Co., Jersey City, N. J.
Wolf, Fred, W. & Co., Chicago, Ill.
Wood, E. D. & Co., Philadelphia, Pa.
Veneer Machines.
Coe Mfg. Co., The, Painesville, O.
Titus, E. E., Petersburg, Va.
Ventilators.
Downman-Dosier Mfg. Co., Atlanta, Ga.
Merchant & Co. Inc., Philadelphia, Pa.
Vices.
Reed Mfg. Co., Erie, Pa.
Wagon Builders' Mch. & Supplies.
Cordeman, Meyer & Co., Cincinnati, O.
Fay, J. A. & Egan Co., Cincinnati, O.
Warehouse. (Fidelity.)
Baltimore Fidelity Warehouse Co., Baltimore, Md.
Washers. (Ore and Phosphate.)
Bailey-Lobby Co., The, Charleston, S. C.
Cameron & Barkley Co., Charleston, S. C.
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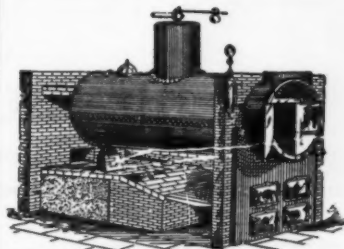
Watchman's Clocks.
Electrical Material Co., Baltimore, Md.
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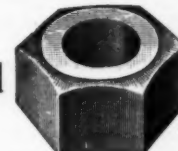
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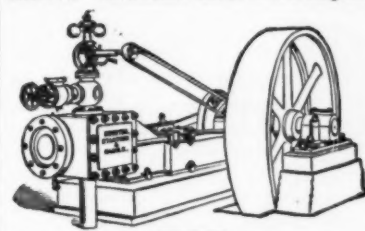
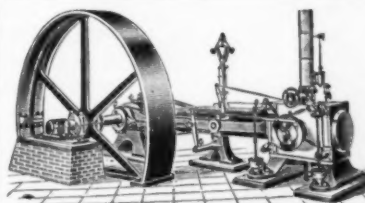
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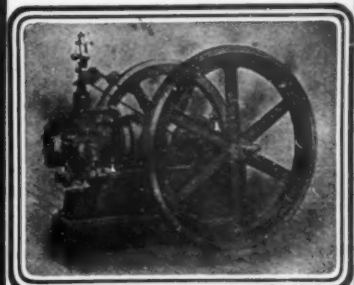
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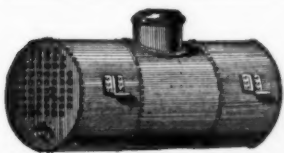
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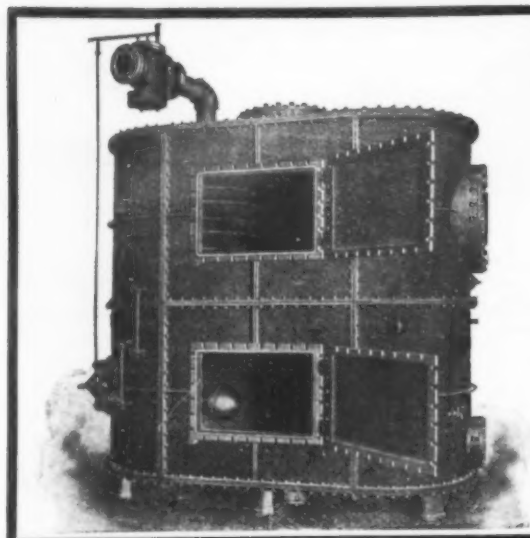
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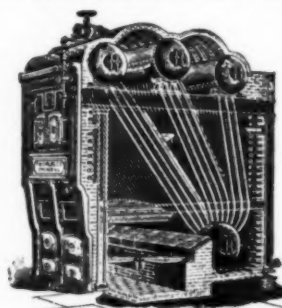
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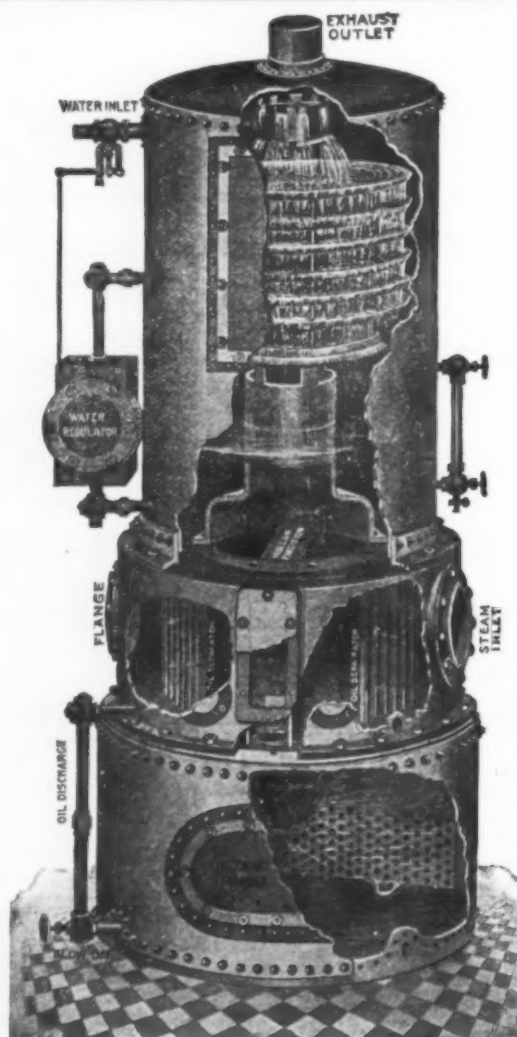


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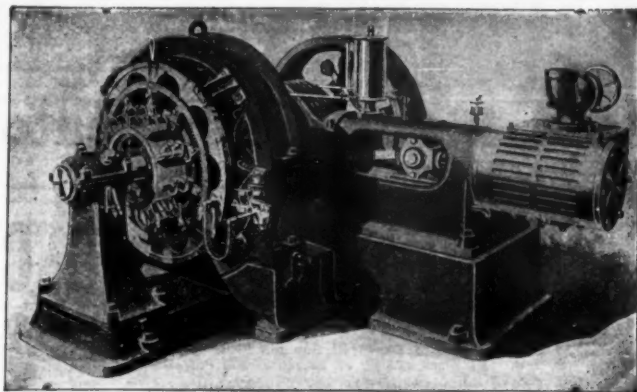
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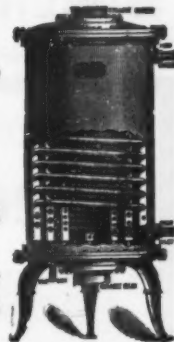
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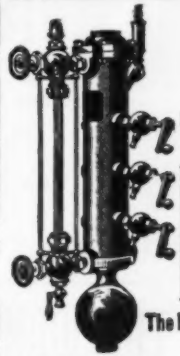


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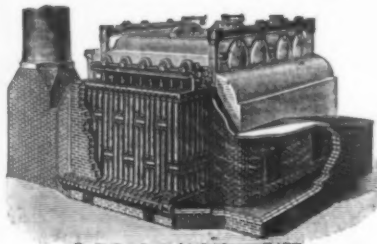
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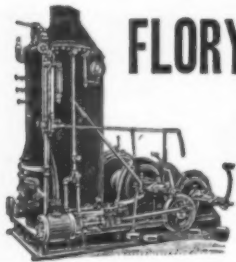


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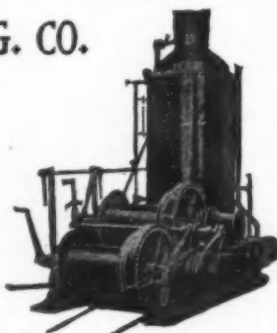
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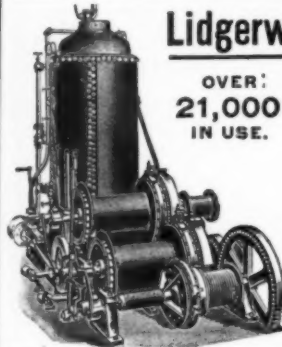
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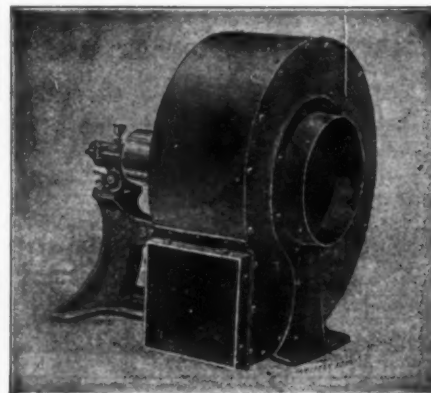
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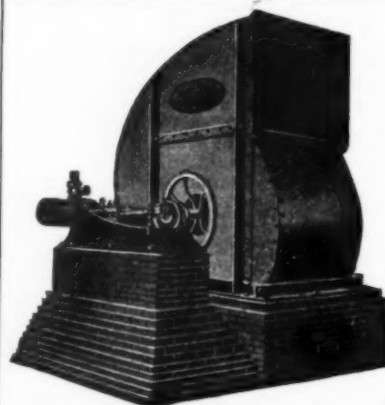
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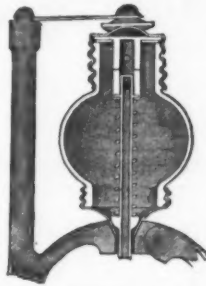
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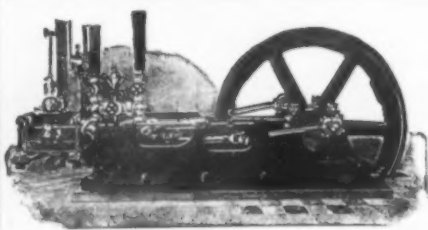
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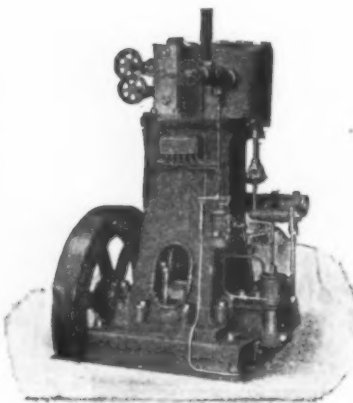
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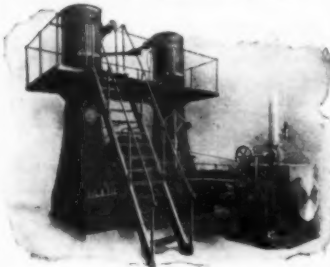
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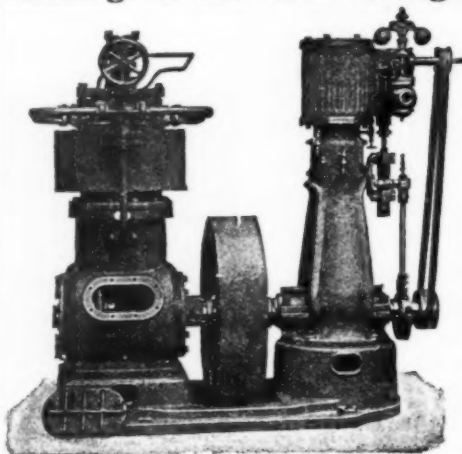
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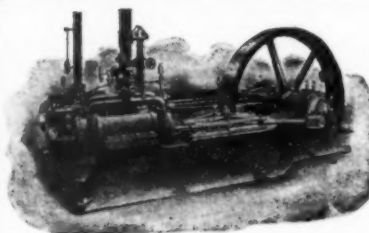
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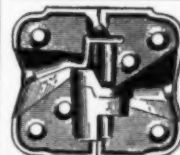
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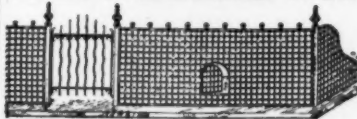
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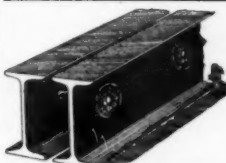
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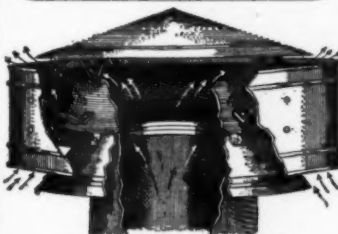
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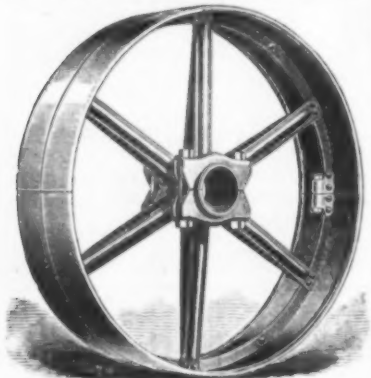
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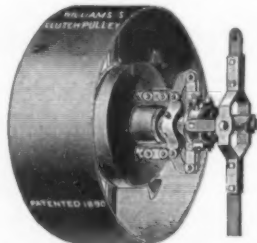
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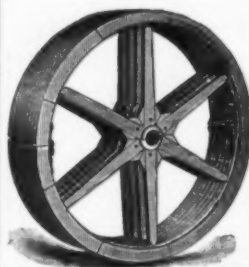
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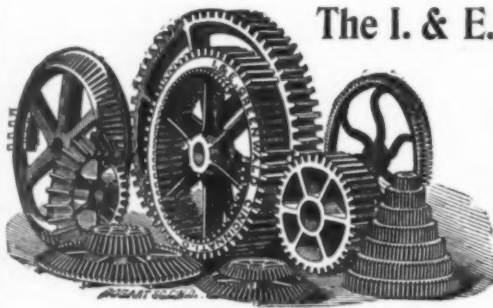
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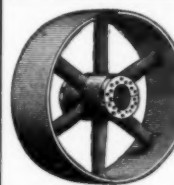
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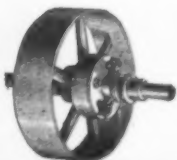
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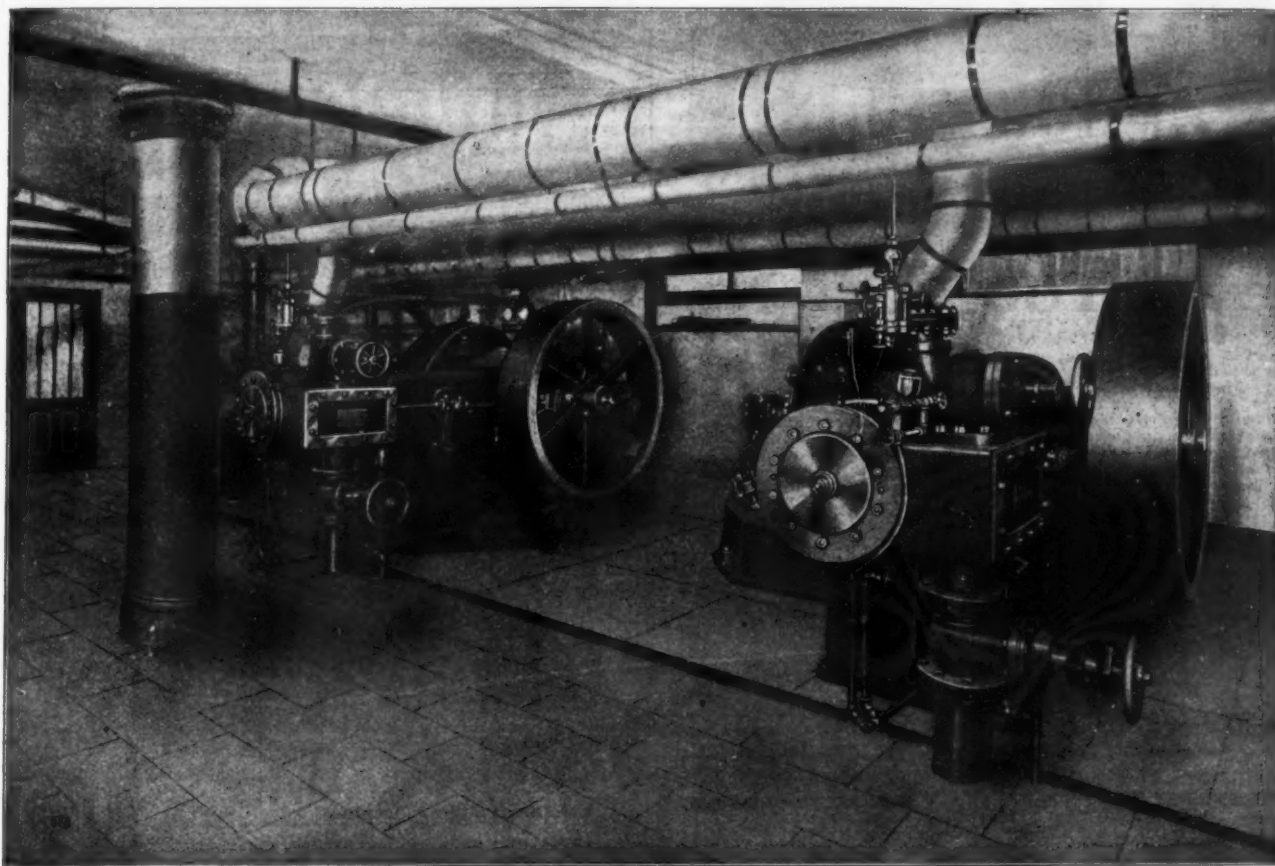
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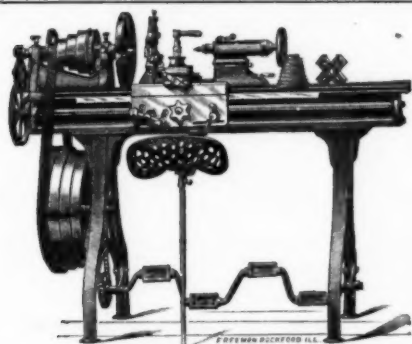
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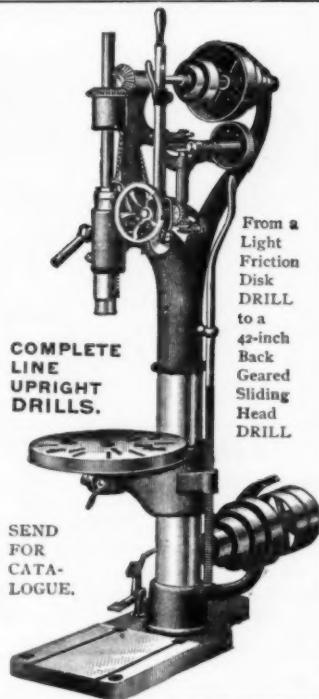


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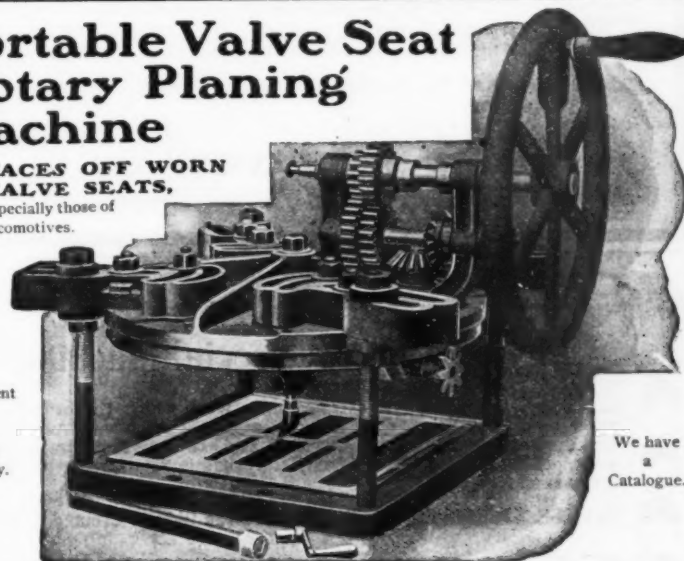
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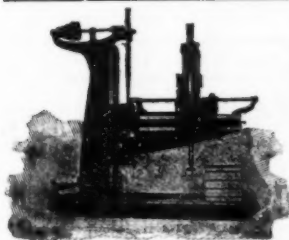
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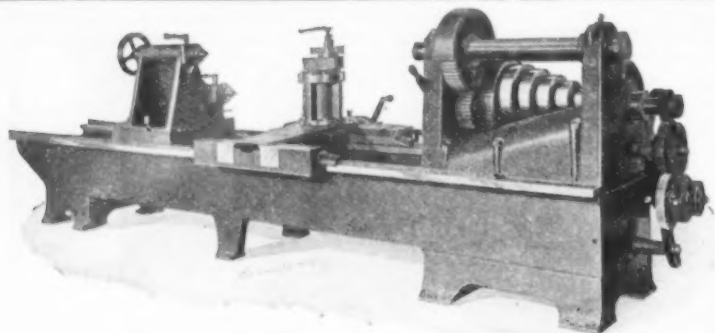
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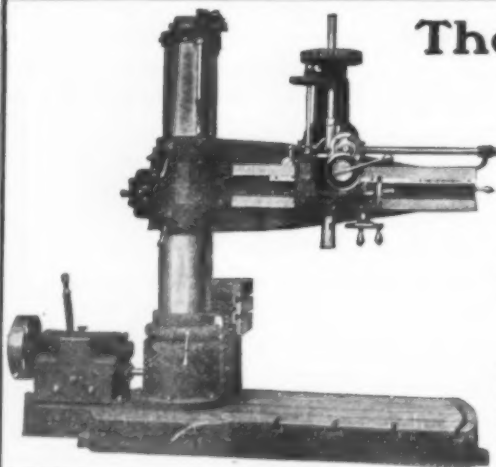


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The Spindle of the New Bickford Radial

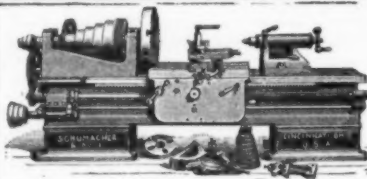
is provided with a depth gauge which enables operator to read all depths from zero, thereby avoiding the liability of error incident to reading a given distance from a fraction.

Is equipped with an automatic trip which operates at different depths, thus making it useful for all repetition work, whether requiring one or a dozen operations to complete.

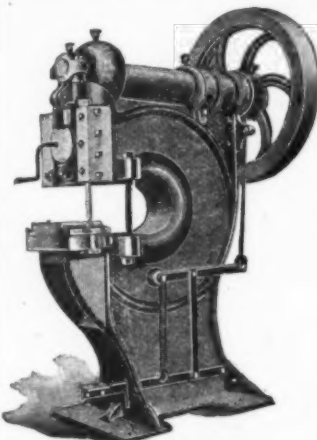
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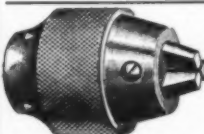
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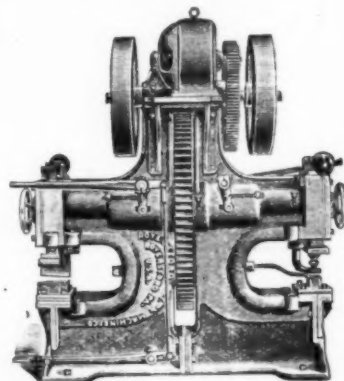
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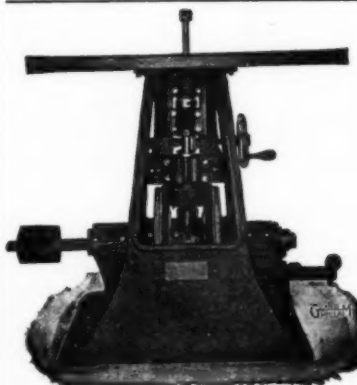
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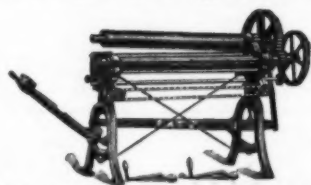


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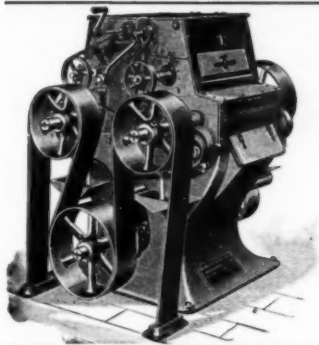
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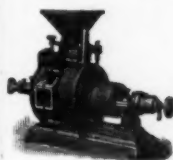
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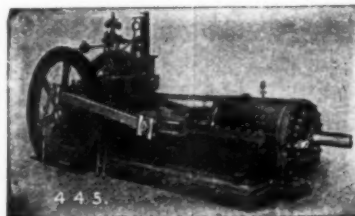
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VARIOUS STYLES AND SIZES.

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excels for bridges, structural steel, roofs (especially
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in fact for all surfaces, wooden or metal, exposed to
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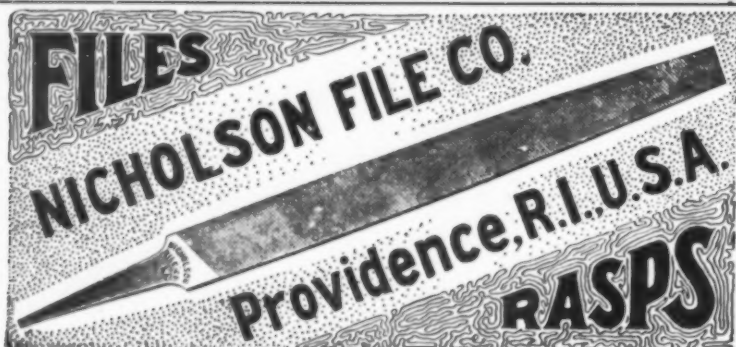
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pleased to send you further information.

Detroit Graphite Mfg. Co.

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WE direct your attention to
our full page advertise-
ment in this issue, touching
upon a subject of international
interest.

JOHN A. ROEBLING'S SONS CO.

MANUFACTURERS' RECORD.

A WEEKLY SOUTHERN INDUSTRIAL, RAILROAD AND FINANCIAL NEWSPAPER.

VOL. XLIV. No. 5.
WEEKLY.

BALTIMORE, AUGUST 20, 1903.

\$4.00 A YEAR.
SINGLE COPIES, 10 CENTS.

Manufacturers' Record.

PUBLISHED EVERY THURSDAY BY THE
Manufacturers' Record Publishing Co.

RICHARD H. EDMONDS, President,
THOMAS P. GRASTY, Vice-President,
FRANK GOULD, Secretary-Treasurer.

OFFICE: MANUFACTURERS' RECORD BUILDING,
BALTIMORE.

RICHARD H. EDMONDS,
Editor and General Manager.

THOMAS P. GRASTY,
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BALTIMORE, AUGUST 20, 1903.

COPY FOR ADVERTISEMENTS.

Advertising copy (changes or new advertisements) should reach us Saturday Morning to insure insertion in the issue of the following week.

For the first issue in the month we should receive copy by Friday Morning of the week preceding.

THE DAILY BULLETIN of the Manufacturers' Record is published every business day in the year for the purpose of aiding manufacturers and business men generally who need to keep in daily touch with the new industrial, railroad and financial developments of the South and Southwest. Supplementing and in connection with the work of the Manufacturers' Record, it is an invaluable aid to all who are seeking business in the South and Southwest, the most wonderfully endowed section of America, where industrial, railroad and financial activity is creating an ever-widening market for machinery of all kinds, railroad equipment and building supplies, and for financial operations, etc., and where the knowledge and skill of the engineer and expert will find their largest field of operation.

The Daily Bulletin is intended simply to cover every day the work of the "Construction Department" of the Manufacturers' Record in reporting every new mining, manufacturing, railroad and financial enterprise organized in the South and Southwest, and it is not intended to be a general daily newspaper. To all who want to be advised every day of every new enterprise organized in that section it is invaluable.

Frank C. Ford, second vice-president and assistant manager of the Carolina Portland Cement Co., Charleston, S. C., in a letter to the Manufacturers' Record says:

As we are constant readers of your Daily Bulletin, from which we usually gather accurate and valuable information, it gives us pleasure to subscribe to an advertising space in your columns, feeling that if the manufacturers, dealers and contractors in our line of material are as desirous of finding the proper place to purchase their material as we are to find the proper parties to sell, that such an advertisement would be advantageous.

Our business extends over the larger portion of the United States, from which territory we have and are still getting information through your columns, and with the advertisement for which we are now subscribing feel that it should enable us to get closer still to the most desirable trade, to which we have always catered.

In a letter to the Manufacturers' Record Paul Tafel, vice-president of the Schwarz System Brick Co., New York, writes:

Since we have written to you we are receiving inquiries concerning our system almost every day, with the remark that "the writer has seen our ad. in the Daily Bulletin of the Manufacturers' Record."

We give you this information to show you that, judging from our results, your decision to open the Daily Bulletin to advertisers and our decision to make use of the same were equally correct.

We hope that other derive as much benefit from the Manufacturers' Record, and particularly from the Daily Bulletin, as a means of advertising, as we do.

The Shelby Electric Co., manufacturers of incandescent lamps, Shelby, Ohio, writes to the Manufacturers' Record as follows:

We find your Bulletin one of the best advertising mediums for Shelby useful light lamps we have ever used.

Advertisements of Southern localities offering special advantages for the location of manufacturing enterprises will be found on pages 58 and 59.

TIME FOR MUNICIPAL IMPROVEMENT CAMPAIGN IN SOUTH.

With the assurance that this year's cotton crop will command high prices, thus adding a great stimulus to the growing prosperity of the South, the people of every community should begin to seriously consider the importance of municipal improvements. Towns without water-works and a sewerage system should prepare at once for their construction, streets should be paved, municipal buildings erected wherever needed, and, without entering upon any wild extravagances, the whole South should make great progress in putting itself in line with the most progressive sections of the country. No better investment can be made than in such enterprises, for they not only mean health and comfort to the people of the community, but they also make possible the attraction of outside people and money. No non-progressive community lacking modern improvements, content with old out-of-date public buildings, need hope to command the attention of outside people. New and attractive buildings, good streets, water-works and fresh paint are wonderful "drawing" cards for towns seeking to secure capital and new population. For many years the South was compelled to lag behind in these improvements, but it can no longer plead financial inability, and now with the great prosperity which it is beginning to enjoy it should enter upon a municipal-improvement campaign, a general cleaning up and freshening up of its schools, its churches and its dwellings. The architect and the engineer should be everywhere in evidence, and no false economy should prevent the employment of the very best talent to be found. Cheap work in architecture and in engineering is the poorest policy which could be devised, and while it always means a botched job it also means in the end a greater

cost than would have resulted had the ablest expert knowledge and skill been secured. The South has had enough of "cheap" work. It needs the highest grade, and all of its improvements should not only have the benefit of the best skill and the best technical knowledge to be found, but they should be made solid and substantial in advance of the present needs of the community, since the development of the South means the great expansion of town and city population.

SUPPRESSING AND PREVENTING VAGRANCY.

One of the last acts of the Georgia assembly was a completion of legislation amending the vagrancy law of the State. As amended to the more comprehensive definition of vagrancy and to the strengthening of the means for its suppression the law is in many respects so good that it is doubtful whether it could be enforced as it should be, even did it not contain within itself the opportunities for its own negation. An eleventh-hour proviso that a sufficient defense to the charge of vagrancy shall be that bona fide efforts have been made to obtain employment at reasonable prices and have failed widens the loopholes for escape from the execution of the law possible in the judicial interpretations of its provisions. But, in spite of its defects, the law is a step in the right direction, and succeeding assemblies should be encouraged to overcome the defects. Chief among these is the absence of provision for the prevention of vagrancy, rendering more difficult the task of the force of sheriffs, constables, town police and other officials charged with the initiative for its suppression. What is needed above all things not alone in Georgia, not alone in the South, is the organization of a modified State patrol that shall render it unsafe for the vagrant, black or white, to appear in town or country. The imminence of such a necessity was emphasized in the address by Judge Emory Speer before the recent meeting of the State Agricultural Society of Georgia, in which he advocated legislation that shall provide for a rural police, not unlike the Texas rangers, and for elevating the character of the judiciary. On this point he was quoted as follows:

Every farmer in Georgia who feels that his family needs the protection of the law should support these measures. All felt that necessity. There were, doubtless, many men present who had made provisions for the protection of their families while they attended this convention. The terrible danger to unprotected women living in the county was volently affecting not only their own lives, making them nervous and wretched, but was most seriously affecting the character of the rising generation, increasing the intensity of race hatreds among the youth of both races, with the most alarming portents for the future. Nor were these crimes chargeable to the great body of the negro. They were usually committed by tramp negroes, who lived lives of the most loathsome and degraded character, almost invariably men of one type, the descendants of the vilest of the African tribes. In many respects we were in a more unfortunate condition than were our forefathers, when on the

frontiers of civilization they were confronting the ferocious savages. They could tell that the Indian was an enemy, but among multitudes of law-respecting and kindly negroes, the beastly and desperate savage could not be identified in advance. * * * If the wives and daughters of our farming population can receive the protection of a rigorous and effective enforcement of law, the waste places of our fertile and prolific soil will soon be populated, the resources of the State immeasurably increased, and happiness and contentment come to thousands of homes which are now the scenes of constant apprehension and terror.

Supplementary to the establishment of a rural police or a State patrol upon lines laid down in a bill introduced in the Georgia legislature by Mr. R. B. Blackburn should be measures encouraging a revival of the apprenticeship system, voluntary in the case of children having parents, enforceable by the State in case of children beyond parental authority, and giving the irremediable vagrant the choice between compulsory work for the State upon the public roads and streets or in the improvement of waste public lands and banishment from the State.

Adoption of such strenuous measures by every Southern State would soon suppress existing vagrancy, and, what is of more importance, would prevent the formation of habits which end in vagrancy.

SOUTHERN WHITES AS COTTON-GROWERS.

One of the greatest errors about the South is found in the belief that negroes are absolutely essential to the raising of such staples as rice, tobacco and cotton. This belief was cultivated even in the South before the passing of the institution of slavery, but its underpinnings have been weakened one by one, and in no respect more so than by the wonderful extension of rice culture during the past fifteen or twenty years in Louisiana and Texas, largely by men who had been wheat-growers in the North and West. The revelation made by them has come with something of a shock to long-range economists like Goldwin Smith, who have not kept up with the facts of Southern development, and the shock is likely to be intensified when they study the changing relations of negroes to the cotton crop. More than thirty years ago an intelligent English traveler, who had devoted several months to careful first-hand observation in the South, with especial reference to the possibilities of the cotton crop, noted in the older cotton-growing regions a tendency to a breaking up of plantations into small farms occupied by white persons. This was very apparent to him in Mississippi and Alabama, and, referring to the latter State, he wrote:

The hilly districts have long been inhabited by a poor white population, who have always produced more or less cotton. But the high value to which cotton was raised by the war and the "labor difficulty" of the large plantations have inspired them with new hope, life and industry, and this class of growers have swelled considerably of late years the deliveries of cotton at the railway depots. * * * They gin and bale their

product at common ginhouses; they spin and weave their own cloth, nourish their cows and hogs, and, when the seasons are favorable, succeed in raising a fair stand of cotton. There never have been better or larger crops of cotton in the hill districts than this season. These small hill farmers come down occasionally into the plain, looking for land to rent or buy, and it is not improbable that many of the better and more industrious of families in the "mountains," as the gently swelling uplands are called, will eventually come down altogether and help to renovate the waste places and build up the agricultural prosperity of the valley.

Reviewing conditions in the South generally, and referring to a competition which had arisen between the larger plantations on which the negroes were chiefly employed and the smaller farms cultivated by white people with as little negro labor as possible, he said:

This feature of cotton-planting in the South is at present conspicuous, for I hold it, from observation as well as testimony, to be certain that the larger proportion of the annual expansions of the cotton crop since the war is due to the energy, on small farms, in gardens and in crops taken on waste and unoccupied plantations, of white labor. Some few of the negroes, no doubt, contribute independently to this small-farm movement, but the ad captandum mode of arguing the superior efficiency of free-negro labor—viz., that so many negroes perished in the war, that negro women do not now work in the field, that negro children are put to school, and that, nevertheless, the crop being all but equal to what it was under slavery, it follows that the negroes free must produce greatly better than when slaves—is superficial, and does not touch the substantial merits of the question. It does not embrace the fact that scarcely any of the plantations on which cotton was grown under slavery are nearly up to the mark of production before the war, and it leaves out of view the great number of small white farmers who, under the advisability of the former growers, have begun for the first time to raise cotton, the numerous bands of white laborers who have availed themselves of the abundant opportunities of renting and cropping from year to year, the white villagers who have thrown their sickles into the common harvest—though small their patches individually, yet considerable in the aggregate—and the cloud of white planters and their families, reduced to poverty, who have been the foremost to go down into the Western bottoms, and there and elsewhere have bent with noble fortitude and ardor to labor in the fields. It would be a misapprehension to take the cotton crop now as the product of negro labor in the same sense as it was before the war. The intermixture of white labor in the cotton culture of the South is already large, and though the forms under which the lands are cultivated are various, yet the general distinction betwixt large plantations wrought by negroes under white employers and small farms wrought chiefly by white people remains a prominent feature of the new state of things, the practical force of which is felt more year by year.

The process then noted has continued until the present day, with some fluctuations. In 1900 cotton was ginned in fifteen States and two Territories. Of these Kansas, Kentucky and Utah, each ginning less than 100 bales, may be disregarded in this connection. Taking the eight States which ginned more than 450,000 bales each, the situation in the county ginning the largest number of bales in each of these States is seen to be as follows, figures of the census of 1900 being employed:

Counties.	Bales. 500 lbs.	Population. White. Negro.
Ellis, Texas.....	126,134	45,216 4,831
Burke, Ga.....	33,937	5,522 24,643
Holivar, Miss.....	71,188	4,197 31,197
Dallas, Ala.....	42,298	9,285 45,372
Jefferson, Ark.....	45,743	11,146 29,812
Orangeburg, S. C.....	49,726	18,229 41,142
Caddo, La.....	43,967	13,826 39,682
Robeson, N. C.....	26,096	19,577 16,917

In six of these eight typical counties the negroes are largely in the majority. Superficially, that fact might lead to the belief that the theory of the negro as an essential factor in cotton-growing had been sustained. But there is another point of view given in the situa-

tion in four other States and two Territories, as follows:

Counties.	Bales. 500 lbs.	Population. White. Negro.
Chickasaw, I. T.....	124,935	124,306 9,066
Shelby, Tenn.....	28,537	68,754 84,773
Lincoln, Okla.....	20,433	24,513 2,158
Jackson, Fla.....	9,564	11,087 12,276
Dunklin, Mo.....	18,563	21,500 205
Brunswick, Va.....	3,323	7,375 10,842

In three of these divisions the whites preponderate, and the excess of negroes in Jackson county, Florida, and in Brunswick county, Virginia, is slight in comparison with the excesses of negroes in the six counties mentioned in the first group. And it is interesting to note that while Robeson county, North Carolina, with 2600 more whites than negroes, ginned 26,006 bales, Marion, the adjoining county in South Carolina, with 1168 more negroes than whites, ginned 29,051 bales, and that while the negroes were in the majority in Brunswick county, Virginia, where was raised nearly one-third of the crop of that State, the whites were in the majority in Tipton county, Tennessee, about one degree farther south, where nearly one-ninth of the crop of that State was ginned. These are a few of the opposing facts revealed in a casual study of the proportion of negro population in different Southern States to the amount of cotton grown in them. Direct proof of the waning importance of the negroes in this field begins to appear in a comparison, between the older growing cotton States and the newer, of the number of bales of cotton ginned with the number of negroes in respective States. In 1900 to every negro in these States there were ginned 5.5 bales of cotton in Texas, 2.2 in Arkansas, 1.2 in Alabama, 1.1 in Mississippi, 1.1 in Georgia, 1 in Louisiana, .9 in South Carolina and .7 in North Carolina. This would indicate that if the negroes are maintaining their position as to proportionate numbers in cotton-growing in the longer-cultivated regions, they are not maintaining their efficiency as such, even allowing for a deterioration of the soil. For the greater number, proportionately, of bales raised in Arkansas and Texas, Oklahoma and Indian Territory cannot be attributed to the negroes, but must be credited to the whites, for in these States, especially the last three, the white population is very large as compared with that of the negro. A sidelight upon the Texas situation is given by the facts for Indian Territory and Oklahoma. In 1900 in the first-named Territory, with a population of 302,680 whites and 26,853 negroes, 249,935 bales of cotton were ginned, nearly one-half in the Chickasaw Nation, where the negroes constitute hardly one-fifteenth of the population, and in the second, with a population of 367,524 whites and 18,831 negroes, 106,707 bales were ginned.

Texas, however, presents the most striking view of the part in cotton-raising toward which the whites have tended. In thirty-seven of the 243 counties in Texas there were no negroes in 1900. In that year there were in the State 286,654 farms of white farmers, with 17,145,584 acres of improved land, producing in 1899 to the value of \$215,434,334, and there were 65,472 farms of negro farmers, with 2,428,643 acres of improved land, producing in 1899 to the value of \$24,367,070. Eighteen counties of the State ginned more than 50,000 bales each, the total in those counties being 1,413,102 bales of 500 pounds each, nearly equal to the total crop of the State of 1,471,242 bales of 477 pounds in 1899. Outside of Texas there were but four divisions—two counties in Mississippi and two nations in the Indian Territory—which ginned

more than 50,000 bales in 1900. The number of 500-pound bales (3,438,386) ginned in Texas in 1900 was nearly equal to the total crop of the South (3,849,469 bales of 477 pounds each) in 1890. It constituted more than one-third of the total ginning of 1900.

Facts about the eighteen leading counties of Texas for the ten years ended 1900 are shown by the following table:

Counties.	Bales.		Population.			
	1890. 477 lbs.	1900. 500 lbs.	White.	1900.	Negro.	1900.
Bell.....	37,473	66,276	30,716	41,712	2,650	3,812
Collin.....	37,094	70,963	34,208	47,629	2,525	2,456
Dallas.....	20,815	59,970	55,795	69,062	11,177	13,646
Ellis.....	42,701	126,134	28,397	45,216	3,376	4,841
Falls.....	28,228	61,450	12,745	21,353	7,961	11,985
Fannin.....	30,709	101,027	34,459	46,327	4,241	5,465
Grayson.....	28,689	63,430	46,453	55,909	6,712	7,742
Gundalup.....	27,088	56,633	10,739	16,195	4,415	5,187
Hill.....	38,175	85,060	25,485	38,378	2,096	2,973
Hunt.....	18,293	83,752	28,917	42,945	2,953	4,340
Kaufman.....	15,893	79,171	18,418	27,281	3,176	6,092
Lamar.....	22,885	89,415	27,882	37,005	3,378	11,007
Lawrence.....	27,274	62,232	17,217	26,218	4,459	9,754
McLennan.....	30,383	86,447	28,811	45,345	10,381	14,495
Milam.....	28,891	55,869	18,548	29,193	6,220	10,473
Navarro.....	27,100	88,013	20,105	34,294	6,296	9,072
Travis.....	29,744	71,899	26,222	34,065	10,090	13,289
Williamson.....	33,945	104,761	23,146	33,736	2,755	4,332
Total.....	526,180	1,413,102	488,324	692,453	100,831	137,481

In every one of these eighteen counties the whites were largely in the majority, their total excess over the negroes in the eighteen counties being 554,972. In 1890 the whites constituted more than 82 per cent. of the population of these counties, and in 1900 they constituted more than 83 per cent., in spite of the increases of negroes around such cities as Dallas, Paris, Waco and Austin. During the preceding ten years the white population of the State had increased from 1,745,935 to 2,426,669, or 37 per cent., and of the eighteen counties from 488,324 to 692,453, or 41 per cent., while the negro population had increased in the State from 488,171 to 620,722, or 27 per cent., and in the eighteen counties from 100,831 to 137,481, or 26 per cent. The cotton crop in these eighteen counties had increased from 526,000 to 1,413,102 bales, or, reckoning the bales at 500 pounds each for the whole period, from 481,975 bales to 1,413,102 bales, or 193 per cent. In one county (Collin), where the crop increased from 37,094 to 70,963 bales, and the white population from 34,208 to 47,629, the negro population decreased from 2525 to 2456.

These facts show distinctly that the whites of the South are raising cotton in ever-increasing number, and the older cotton States would today be nearer the situation in Texas in this respect had not the unrest of thirty years ago in the older States driven thousands to the Southwest, and had not the revival of the cotton-manufacturing industry upon a scale only sketched before the war given in the mills opportunities for employment to thousands of white workers who otherwise would have become cotton-growers.

NEEDED FOR THE UPBUILDING OF A STATE.

Two speeches have recently been made in Georgia full of sound wisdom, which, if practically applied by the people of the State in choice of their lawmakers, would bring to the State a development surpassing the most sanguine hopes. The one was a plea by Mr. Edwin Brobston of Brunswick before the League of Municipalities at Macon for the encouragement of capital to come to Georgia. He rehearsed the advantages of the State for agriculture, manufacturing, mining and commerce, and said that its greatest need at present was more diversified industries for the utilization of raw products. As a means to that end he advocated a comprehensive, systematic plan of advertising the resources of the State and

legislation for a remodeling of the constitution and an improvement of the laws for the fostering of new enterprises and the protection of the men who shall come to the State to develop them.

The general advice given by Mr. Brobston has particular application in an address made by Major J. F. Hanson before the State Agricultural Society, part of which is reproduced on

another page of this issue of the Manufacturers' Record. Talking to representative farmers of Georgia and reviewing the progress which has been made in recent years, he told them that that progress had been due not alone to agriculture, or to commerce, or to finance, or to manufacturing, but to the interdependence of them all. With diversity of industry, he said, farming has become profitable; with the building of cotton mills had come a demand for food and other supplies, while the merchant, the banker and the railroad were as useful to the farmer as is the manufacturer. In view of that mutual dependence among productive interests he argued that good policy and justice requires that the railroad, the merchant and the banker, as well as the farmer and the manufacturer, should be protected by just laws. He dwelt upon the dominant part played by corporations in the development of the State and instanced the treatment of the railroads as typical of the unjust attitude of the State toward corporations. He presented figures showing that though the earnings of the railroads had increased 41 per cent. in ten years, the taxes paid by them had increased 92 per cent., while the taxes on farm lands had in the same period increased 1.2 per cent., in spite of the fact that the value of farm products had increased 25 per cent. He advocated legislation to equalize taxation, and said that the carrying out of such a policy rested with the conservatism of the country. The main obstacles to be overcome were sketched by him as follows:

There are but few manufacturing, commercial or financial establishments in the State of any magnitude that are not incorporated. No one will say that corporations are illegal or illegitimate, while everyone will admit that they are necessary; but while this is true, the property of corporations is not protected by the courts as is the property of other citizens. It is a well-known fact that in many of the communities of the State there are lawyers and politicians who are known as anti-incorporation politicians. The first are engaged in promoting suits against corporations, and the second in constant and unjust appeals to the prejudices of the people against corporations and in efforts to secure legislation that is unjust and oppressive to corporate capital, especially that invested in our railroads, whether it be home or foreign capital, both of which should be treated like investments in other property. You are fully acquainted with the facts with reference to anti-incorporation lawyers and the practices to which they resort. Both have become notorious, and to such an extent that the judges of our courts, who are in the main, if not entirely, free from blame therefore, are powerless to protect corporations from wrong and injustice resulting from

these practices, which would not be tolerated if employed against private property.

If the conservative citizens of Georgia desire striking examples of the evils mentioned by Major Hanson they need only to review the proceedings of the legislature which has just adjourned. Its sessions have brought to the front in all their horridness both the anti-corporation attorney and the anti-corporation politician. The names of most of these vampires are so familiar to the people of the State that it is not necessary to mention them here. What the people must do, if the aspirations of the useful citizens of Georgia are to be fulfilled, is to see to it that the next legislature of Georgia shall not countenance men who would be a disgrace to any legislative body.

IN REFRESHING CONTRAST TO OBVIOUS LABOR TENDENCIES.

In 1894 L. B. Ferguson of Meridian, Miss., stepped from the public school into an apprenticeship in the machine shop of the New Orleans & Northeastern Railway. Within three years he had become assistant draftsman, and about two years ago, having in the meantime become chief draftsman, he was also made assistant foreman of the car department. He has recently become master mechanic of the Vicksburg, Shreveport & Pacific Railroad, with headquarters at Monroe, La. In publishing these facts the Railroad Record of Meridian says that they are an inspiration to every worker in the railroad service, and attributes Mr. Ferguson's success to his constancy in not seeing how much more some other employer is offering, but seeing how much more you can make yourself worth to your present employer, and to the railroad's disposition to give to a man a chance to show what he is made of and to look over the list of its own men first when a position is to be filled, and it concludes:

Be the best that's in you. Do the best that you can, for that is the way to win success and be a coming man.

This incident shows that the day of opportunity and encouragement for a man to put the best that is in him into his work has not entirely passed. It is a notable example of a survival of the spirit which has made the American workman the best in the world, notable because in such marked contrast to the spirit animating the aggressive, though minority, element in organized labor in this country. That element, led by men of foreign birth or extraction, is doing all within its power, in a day of work beyond the power of available workmen, not only to limit the exercise of the full ability of the individual workman, to make "soldiering" compulsory, but also to limit the freedom of the employer in appointing his own apprentices and in filling vacancies that may occur. It is for the conservative American wage-earner to suppress that alien spirit in organized labor, and one of the most effective means to that end would be the resistance of Southern wage-earners to the program, with especial reference to the South, mapped out last fall at the New Orleans gathering of the American Federation of Labor. Otherwise the great masses of the American people will turn against organized labor, and, losing sight of the real benefits inherent in organization, will condemn it for its submission to damaging and dangerous leadership.

In subscribing to the Manufacturers' Record, J. Baumgarten & Sons, Washington, D. C., write:

We would not be without it if the price

were double. We find the information to be exceedingly reliable, and reports of organization of new corporations are so promptly published that our circular-letters to them meet with excellent results in the shape of orders for rubber stamps, seals and stamp supplies.

LYNCHING.

About the most worthless discussion that has ever been perpetrated under the auspices of the New York Chautauqua is that of the past week bearing upon lynching. It was largely the occasion for an airing of the views and for a wide publication of them in inverse proportion to their practical value of oratorical extremists on both sides of the race question, representative of the conservative and progressive sentiment of no section of the country.

Lynching will not cure the evil to which it is the unreasoning response. The evil must be prevented, and the means of its prevention are set forth succinctly by the Philadelphia Press, as follows:

The one penalty, inflicted by a surgeon, for the offense usually leading to mob violence has its chief deterrent value because it is certain and irreparable in its effects. Grim as it is, it will do its work better than any other. It is needed. It should be enacted. But it needs to be supplemented by the network of a rural mounted police, from whose constant watchfulness no one can escape. It is not simply an awful penalty, which is necessary to stay bestial impulse, but adequate provision for protecting the countryside, so that the most imbruted intellect will understand that escape is impossible. This will prevent the "usual crime," and when this is prevented the mob will be prevented, too.

For a Pearl Button Factory.

Mr. J. C. Van Pelt, secretary of the Louisville Commercial Club, writing to the Manufacturers' Record regarding the project for a factory to make pearl buttons from mussel shells, says:

"We have shells enough in the immediate vicinity to run twenty factories. Captains of steamers have been passing over these shells for thirty or forty years and never had an idea that they could be made use of. Now hundreds of tons are being shipped from here and New Albany every day. The raw material is here in inexhaustible quantity, and the factories should be located here on account of the saving of freight, exemption from municipal taxation and for other good reasons. We are now expecting a visit from a party who is seeking a location where the raw material is plentiful. The mussels are in such quantities that boats and machinery are being constructed with a view of dredging for them. The meat furnishes an excellent food product, and the scraps are ground for chicken feed, fertilizers and other purposes."

Site for a Piano Factory.

The Manufacturers' Record is in receipt of a communication from W. H. Montgomery, 31 Eagle street, Brooklyn, N. Y., who contemplates removing a piano factory. Mr. Montgomery desires to establish the plant in some desirable location where the most advantageous conditions for such an enterprise are found. Correspondence regarding a site is invited.

Carolina or Georgia Clay Mines.

The American Pottery Supply Co., 22-23 Glenn Building, Baltimore, Md., advises the Manufacturers' Record that it wants to become sales agent for or acquire an interest in clay mines located either in the Carolinas or in Georgia.

R. O. Couche of Melbourne, Australia, visited Louisville, Ky., last week to buy a big lot of hardwood.

DEVELOPMENTS IN THE SOUTHERN COAL TRADE.

By F. E. SAWARD.

[Written for the Manufacturers' Record.]

Official returns tell the story of the growth of the Southern coal trade. The Chesapeake & Ohio shows for June this year 364,349 tons, as against 190,041 tons in that month last year, while the Norfolk & Western Railway Co. shows 645,225 tons for July, as compared with 564,468 tons for that month a year ago. Then there is the Southern, which handled during the first five months of this year 1,666,423 tons of coal from the Alabama and Tennessee districts. Last year the five months supplied 1,505,853 tons. The Alabama district supplied 1,155,681 tons in 1903, and the Tennessee fields 510,742. During the year 1902 the Alabama district furnished the Southern Railway tonnage through the first five months of the year 950,399 tons of coal, and Tennessee 555,454 tons.

The Chesapeake & Ohio report for the year shows \$5,658,879 net earnings, which is a decrease from the previous year of less than half a million, and yet there was a long strike at coal and coke works along its line for a long period during the fiscal year. The Norfolk & Western shows \$5,891,930, an increase of nearly a million, because there were no great troubles at mines along its lines. In a recent interview Chief Mine Inspector J. W. Paul remarked that there is the largest coal development at the present time in the history of West Virginia, and especially along the Kanawha. In that section there is a great amount of construction of railroads into the various coal fields, and the coal development in that section in the immediate future will be such that the railroad facilities will not be able to move more than 75 per cent. of the capacity of the mines. "About the same beneficial effects," says Mr. Paul, "have resulted in towns in the southern portion of the State from the coal development as have resulted to Clarksburg and Fairmont from the development of the coal region."

F. S. Landstreet, vice-president of the Western Maryland Railroad Co., announces that a settlement has been reached with the South Baltimore Land Co. for about twenty-eight acres of land at Baltimore, needed for a right of way and a freight-yard for the extension of the road to tidewater. This removes the chief obstacle to the completion of the line. It is also announced that work has been begun on the second and third divisions of the extension from Chery Run to Cumberland, a distance of thirty-eight miles, and that the entire line, which forms the connecting link between the West Virginia Central and the Western Maryland, is to be completed within eighteen months from August 1.

Mr. George J. Gould has pinned his faith on Baltimore as an outlet for his great system. His signal triumphs in the past warrant the implicit belief that his gigantic project will fulfill all anticipations. To the people of the West and Southwest this extension of the Gould system of railroads to Baltimore is of vital importance. It means better transportation facilities, better time and less probability of inequitable or monopolized rates. In view of the rapidly-expanding industrial and agricultural production of that part of the country, Mr. Gould's plans deserve the heartiest endorsement. They are in line with the needs of the times. Their consummation will prove an important factor in the future upbuilding of the West. Mr. Gould's untiring energy, calculating foresight and boldness of purpose and execution stamp him as one of

the greatest, if not the greatest, of our railway kings. The system will be getting coal out of the New River district before many months have waned. The Wabash has completed an extension of its West Virginia Central & Pittsburg division to Bayard, W. Va., on the outer edge of the New River field, and will begin the shipment of coal from that field to Baltimore at once. The fact that ex-Senator H. G. Davis and his associates are building an extension of their line, the Charleston, Clendennin & Sutton, from Big Otter, W. Va., to the Wabash at Belington, adds color to this story, for their line will make a feeder for the Wabash system.

It is stated by those familiar with the situation in Alabama that the production of coal in 1903 will probably exceed the 1902 tonnage, notwithstanding the loss of a month's mining operations. It is believed that improvements made about the mines during the idleness, and the new mines which will be ready for operation in the next month or so, will so increase production that before the end of the year the loss in tonnage will be more than made up, and the demand is said to be great enough to absorb all the coal that can be turned out between now and January 1. The barge line of the Southern Railway, which takes coal at Greenville, Miss., and ships it down the river to New Orleans, has resumed operations since the miners went back to work. The barge line is one of the most successful institutions operated by the Southern, the yearly trade handled by it being in the neighborhood of 250,000 tons. Coal is again being shipped from the Alabama coal fields to Tampico, Mexico, via the port of Pensacola, to which it is hauled by the Louisville & Nashville Railroad. This is a well-established business, but was interrupted by the strike. The men surely acted wisely in going to work pending the result of the arbitration proceedings now under way. The Seaboard has not quite finished its Alabama extension, but is working hard at it, and expects to have trains running into Birmingham by the first of January, 1904. In addition to the main lines which reach that city, there are other smaller roads in the district, such as the Birmingham Mineral and the Birmingham Southern, which handle a great deal of coal and ore traffic. The Birmingham Belt, which belongs to the Frisco, and which extends around the city, is a prominent factor in handling the freight traffic. Birmingham will soon have a direct route to Chicago by way of the Illinois Central, which is building an extension to Birmingham via Sheffield.

Fireproof Material Wanted.

Mr. R. L. Newman, care of C. D. Mosher, No. 1 Broadway, New York, in a letter to the Manufacturers' Record, says: "Some time ago the writer saw in your magazine an account of a new fireproof material which, apparently, had very enduring qualities. I think, as far as I remember, it was manufactured somewhere in Europe. Could you inform me as to the name of this material and of its qualities, also where it could be obtained? Our object is to use it as a substitute for asbestos, etc., for insulating boilers."

The operators of the Fairmont coal field of West Virginia propose to spend \$15,000 on an exhibit of coal at the St. Louis Exposition, and an effort will be made to make the coal exhibit of the State the best at St. Louis.

SUGGESTIONS FOR SOUTHERN DEVELOPMENT.*

By MAJOR J. F. HANSON.

In discussing our industrial development, I do not propose to say much, if anything, with reference to our natural resources. Of these you have heard much that is justified by fact, and much, perhaps, that is not true. However this may be, we possess nothing in this respect that we did not have when Oglethorpe came to Georgia. Prior to the period under review we made practically no progress in developing our resources, whatever they may have been. During this period we have made great progress. Whether the causes that resulted in the neglect of, and possibly opposition to, manufacturing were those that I have suggested, or whether we failed of development in this direction from these or other causes, or from both combined, it is true that since the war we have made great progress. Our natural resources were not sufficient in one period, with conditions then existing, to promote manufacturing, and hence the conclusion is reasonable that our development since the war has been due to other causes than the possession of abnormal natural resources. This development resulted from the supreme purpose of our people to make Georgia a manufacturing State. Neither progress nor stagnation are the results of accident. The reasons for both are easily discovered when honestly looked for. Development does not come without reason or of itself. It is the result of both necessity and favorable circumstances or conditions, and will be rapid or slow, great or small, according to necessities and opportunities.

Those of us who are old enough to have experienced the difficulties with which the people of the State were confronted in the sixties find ample cause for congratulation in the development that has since taken place, and comparing conditions then with those that now exist we are justified in anticipating much more rapid progress in the future.

Our farmers are more prosperous than they have ever been. Our commercial and financial institutions are strong; we have a large and varied manufacturing interest; our railroads, in point of condition, equipment and service, are unexcelled and probably unequaled anywhere in this country or in the world when the volume of traffic and rates charged are taken into the account. This is the combined equipment, the sum of the resources of the present with which we are to pursue the purpose formed a third of a century ago for the general upbuilding of the State, and which so far has produced larger and better results than we expected to see.

It should not be forgotten, and this point I desire to impress upon you, that our growth in the past has not been due alone to agriculture, as some would have you believe, nor to our manufacturing, commercial and financial establishments, nor to our railroads, but it has been due to all of these interests in combination with the others; each supports the others, and each, in turn, is supported by the others. If this were not so, there would be no reason for the domestic combination of interests which every intelligent government and statesman in the world is seeking to promote. By common consent agriculture holds the first place in our industries, but if we were all farmers, to whom would the farmer sell? If there were no merchants, how would he reach the buyers? If there were no factories or tradesmen or railroad employees, to whom would the merchant sell? If there

were no railroads, how could the products of the farm be transported to market, or how could the farmer secure the supplies that he purchases, because he cannot or does not produce them? The absence of manufacturing and commerce, of banking and transportation, is always fatal to agriculture; hence the maxim that "the people of every agricultural country are poor." They are poor for want of diversity. This has been our experience, and we have also learned from experience that with diversity of industry farming has become profitable. There is a reason for it. The building of cotton mills creates a demand upon the farms for food and other supplies. This is true of every other branch of manufacturing. The cotton mills of the South have also become an important factor in the consumption of this staple, and more than once in recent years the effect of this demand for cotton has been potential in sustaining or advancing prices. In every market where there is a large demand for cotton to supply local mills prices are invariably higher than they are in similar markets where there is little or no local mill demand. In this fact we have an illustration of the effect upon agriculture of manufacturing. Other illustrations might be made, but this is the most important and best-known effect, and for this reason it is submitted in substantiation of the principle involved. The merchant, the banker and the railroad are as useful to the farmer as the manufacturer. It will be found upon analysis that we cannot dispense with either of the classes named without injury and irreparable injury to the others.

If there is mutual dependence between our different productive interests, or between these interests and others which, if not productive, are just as essential, as, for instance, our railroads, banks and commercial establishments, it follows, as a matter of course, that good policy as well as justice requires the promotion by good policy and the protection by just laws of the railroad, the merchant and the banker, as well as the farmer and the manufacturer. Our progress in the past has been due in the initiative to causes already stated. The method and means of promotion, almost without exception, have been by and through corporations. This will be true in the future, and for very simple reasons. This is the only way in which adequate capital can be controlled for large enterprises, or by which the enterprises themselves or the capital invested in them can be perpetuated.

There are but few manufacturing, commercial or financial establishments in the State of any magnitude that are not incorporated. No one will say that corporations are illegal or illegitimate, while everyone will admit that they are necessary; but while this is true, the property of corporations is not protected by the courts as is the property of other citizens.

It is a well-known fact that in many of the communities of the State there are lawyers and politicians who are known as anti-corporation lawyers and anti-corporation politicians. The first are engaged in promoting suits against corporations, and the second in constant and unjust appeals to the prejudices of the people against corporations and in efforts to secure legislation that is unjust and oppressive to corporate capital, especially that invested in our railroads, whether it be home or foreign capital, both of which should be treated like investments in other property. You are fully acquainted with the facts with reference to anti-corporation lawyers and the practices to which they resort.

Both have become notorious and to such an extent that the judges of our courts, who are in the main, if not entirely, free from blame therefor, are powerless to protect corporations from wrong and injustice resulting from these practices, which would not be tolerated if employed against private property.

Upon the highest authority upon this question our railroads are paying more than their just proportion of our taxes. Upon this point I desire to submit some facts obtained from the reports of the honorable comptroller-general of the State:

In 1892 the general property was returned for taxation in Georgia at.....	\$421,149,509
In 1902, ten years later, the general property was returned for taxation at.....	410,417,180
A decrease in ten years of.....	10,732,329
Or 2.5 per cent.	
In 1892 the railroad, telephone and telegraph property was returned for taxation in Georgia at.....	42,604,025
In 1902, ten years later, the railroad, telephone and telegraph property was returned for taxation at.....	56,893,468
An increase in ten years of.....	14,289,441
Or 33.5 per cent.	
In 1891 the gross earnings of the railroads of the State of Georgia were.....	16,486,000
In 1901, ten years later, the gross earnings of the railroads in Georgia were.....	23,246,000
An increase of.....	6,760,000
Or 41 per cent.	
The taxes paid by the railroads in Georgia in 1891 amounted to.....	417,000
While in 1901 the taxes paid by the railroads in Georgia amounted to.....	802,000
An increase of.....	385,000
Or 92 per cent.	
In 1890 the value of farm products in Georgia was.....	\$3,371,482
In 1900 the value of farm products in Georgia was.....	104,304,476
An increase of.....	20,332,994
Or 25 per cent.	
In 1892 the taxes paid on farm lands in Georgia amounted to.....	1,213,000
While in 1902 the taxes paid on farm lands in Georgia amounted to.....	1,367,000
An increase in ten years of.....	154,000
Or 1.2 per cent.	

It will be seen from this statement that while the earnings of the railroads increased 41 per cent., the taxes paid by them increased 92 per cent., and while the value of farm products in the State increased in ten years 25 per cent., the taxes paid on farm lands increased only 1.2 per cent.

As significant as these figures are of the inequality of taxation as applied to the railroad, telegraph and telephone lines, on the one hand, and the owners of other property, on the other hand, they do not show the real injustice to the corporations named, because the property of the corporations in 1891 and in 1901 was subject to assessment by the comptroller-general, while the owners of common property returned it for taxation at such valuations as they elected to place upon it, and which were not subject to any adequate system of revision. It is not contended that the railroads at either period were assessed more than their value, but that common property was returned below its value. But notwithstanding the fact that railroad assessments increased in the ten years named 92 per cent., while their earnings increased but 41 per cent., the returns of farm lands was increased but 1.2 per cent., while the value of farm products increased 25 per cent. The returns of many other classes of property would demonstrate still greater injustice to the corporations, because the facts show that between 1892 and 1902 the common property returns for taxation decreased nearly \$11,000,000. When it is remembered that the ten years in question were the most prosperous of any like period in the history of the State, and that if common property returns were honestly made we went down hill financially to the amount of over \$1,000,000 annually, what will be said at home and abroad with reference to the value of our boasted natural resources? The conclusion is irresistible that the common property of the State is not fairly returned for taxation, or that we either have not the natural advantages for normal development or we are incapable of developing what we have.

As if the burdens placed upon the railroads by this inequality were not enough, it is now proposed to increase their assessment \$20,000,000, or 35 per cent. more than they were assessed for in 1902, and upon the plea of the anti-corporation politicians that the railroads are not paying their just proportion of our taxes. I believe in the wisdom, justice and moderation of the people of Georgia in dealing with any question when the facts that it involves are placed properly before them. Beyond this, the conservatism of the country people—the farmers—must be relied upon to keep the State true to her motto, and hence I bring this question to you for consideration in connection with our policies for the future.

We need legislation to equalize taxation. There are many systems in operation in other States to accomplish this purpose, and from these the methods we had best employ can be ascertained. The results will benefit the State by doubling her property returns, thus demonstrating her progress and wealth. Tax rates can be reduced one-half without reducing the income of the State, while low taxes will attract capital.

The great progress that we have made and that the world has made during the last twenty-five years has been by and through corporations. If they are legitimate, lawful, necessary and indispensable to our progress, they should be protected to the extent that other citizens are protected with respect to taxation; they should be protected as other citizens are protected in the administration of law. These results can only be obtained by the creation of an intelligent, sound and just public sentiment. Georgia should treat the capital of her people and of our friends elsewhere, invested in her corporate securities, just as she treats capital invested in other property. She should treat corporations as well as they are treated by any other State and as a question of good policy—of the best policy that she can pursue to promote her progress, I would have her treat them better than any other State. If she does this, home capital will come out and foreign capital will flow to us for every development that promises profit, and the brightest present dreams of her future power and glory as a manufacturing State will be more than realized.

KENTUCKY'S OIL FIELD.

Prospects of Greater Developments Than Ever Before.

[Special Cor. Manufacturers' Record.]
Barboursville, Ky., August 17.

Another relay station has been established in Clay county, and it now seems as if the congestion in the lower oil fields of Kentucky will be relieved at an early date. For the past three weeks the production was greater than the storage capacity, and consequently little oil could be run through the pipe lines. This resulted in a complete tie-up of the production, the oil having to remain in the various smaller tanks scattered throughout the developments, and as these tanks could not long relieve the pressure pumping at a great many wells had to be suspended. Since the second relay station has been established it is now thought the oil from the lower fields may be sent through to the central developments with very little trouble.

The part of the main pipe line extending from Somerset, in the lower fields, to the Licking river station, in the central fields, is in shape to handle the oil, and the surplus production will now be sent through this line. The lower fields have been producing for some time, and there are in storage tanks at Somerset and Barboursville over 400,000 barrels of oil. Marketing in the central fields has been

*From an address before the State Agricultural Society of Georgia.

progressing but a short time, and as the output of that section is a different grade from that of the lower developments it is not mixed, but is run through a special pipe line to the railroad station, from which point it is shipped in tank cars. Before the establishment of this pipe line large storage tanks were erected in the central fields for the purpose of receiving the heavy oil, and as this oil is now being shipped in cars these tanks will be utilized for storing the surplus oil of the lower developments. The latter grade of oil is a light brown and commands a higher price than does the heavy grade.

The depression caused developments in the counties of the southern part of the State as a result of an insufficiency of tankage was somewhat offset by advances in the prices of crude oil, and field work was up to the average in most sections. The counties of Wayne and Knox continue to attract attention, but conditions in the latter section are not as encouraging as formerly. Opposite Knox county, in Whitley, considerable work is under way, and a market for the output of that county is a probability of the early future. The Standard has stepped in and consented to build a line from the developments to the Louisville & Nashville Railroad Co.'s tracks, and in this way give the field a thorough test. The oil will be loaded into tank cars and shipped away to be refined for illuminating purposes. Not a great many wells have been drilled in, but most of the producers are in a deep sand, which gives every evidence of proving lasting. Most of the wells are 900 feet deep, and some oil experts claim the formation to be the same that is found in the West Virginia fields.

In the lower fields during the month of July about forty wells were completed. These are scattered through the counties of Knox, Whitley, Wayne and Cumberland counties. Wayne county is easily in the lead in regard to new production, most of the wells drilled in being of large caliber. During the first week in August not very much work was accomplished. Four wells were drilled in, the Chenoe Co. getting a 50-barrel producer, the Kentucky & Ohio a three-barreler on the Slagle farm, the Mayfield concern a 15-barrel well on the Davis farm and the Kenanna Co. a duster. July work in Knox county resulted in the completion of ten wells, with a new production of about twenty-five barrels. Last week two wells were completed. Only six wells were completed in Whitley county in July. None of these have been tested. A number of wells are drilling in that county.

Drilling in Cumberland county continues with vigor, although nothing of much importance occurred during July. The country is removed from railroads and is hard to get into. Last week three good producers were drilled in. These are located in the Salt Lick Bend division. The Shelbyville Oil & Gas Co. got a 25-barrel producer on the Cloyd farm, the New Domain (Standard) one of a five-barrel caliber on the Heard farm, while the pioneer Greensburg Oil Co. drilled in a well on the McComash farm, with a showing of eight barrels. The Standard is taking an active hand in developing the Cumberland county field, and has a number of rigs at work. This company has more territory than any other five concerns in the field.

Work in some sections of the central developments has been successful, while in others it has not. The Ragland field of Bath county continues to show up with a fair production, and the average weekly output of that division is 5000 barrels. Not many wells were completed in July. The recent advances in the price of crude oil did not affect the price of the grade of

oil produced by the central fields, and that article remains at sixty-two cents a barrel, ninety-nine cents being paid for the lighter grade of oil. Deep drilling has never been carried on in that section, but it is the opinion of numbers of operators that green oil will be encountered by drilling to a sufficient depth.

In the counties of Morgan and Wolfe deep drilling has been carried on to some extent. In Wolfe county there are two wells 1600 feet deep, which showed a fair amount of oil when drilled in. In Morgan a number of holes have been drilled, but only one shows up to be a fair producer.

The Standard has lately been acquiring leases in Elliott county, and is claimed to have secured nearly half the available territory of that county. This county lies north of Morgan and is also north of the Whitehouse developments of the Standard in the counties of Floyd and Johnson.

Altogether, there are now about 302 producing wells in Kentucky. This represents the wells in actual connection with the pipe line and which have been producing regularly for some time. Consequently, these wells form developments, outside of which and scattered over a vast area, are probably twice as many wells, most of which have never been tested. The wells with pipe-line connection are distributed as follows: Wayne county, 177; Knox county, 100, and Bath county, 85. Actual drilling has been carried on in probably eighty counties to some extent, and in some of these counties considerable developments have been made. In other sections work is still in its infancy. However, it may readily be seen how vast is the extent of the territory in which work is progressing, and, judging by the work that has already been accomplished in so short a time, the outlook for Kentucky as a future oil-producing State is very encouraging.

W. S. HUDSON.

The Birmingham Iron Market.

[Special Cor. Manufacturers' Record.]

Birmingham, Ala., August 17.

Things have been looking much brighter in iron circles the past week, and some fairly good orders are reported to have been booked by local furnaces. Some very large sales are said to have been practically closed, but it has been impossible to verify the rumors. The yards are full, at least 150,000 tons being stacked. On top of this the production is good, which is constantly adding to the accumulation. The new Gadsden furnace of the Alabama Consolidated Coal & Iron Co. will be in blast by midweek. It will have a capacity of at least 250 tons a day. It has the largest bosh and is the tallest stack in the State. It is capacitated for more iron in a day than the new furnace of the Republic Iron & Steel Co. at Thomas. This will make a good-sized increase in the output itself.

Signs of better things are the reports of the railroads of increased shipments during the past ten days. Several trains have gone out loaded, and the aggregate of cars of iron shipped has been very much above the average for some time. Most men who think intelligently about the iron market believe that after the award of the arbitration board now in session on the coal miners' contentions business will begin to climb.

In bar-iron circles there is activity, but with rather a poor aggregate demand. The mills at Bessemer and Gate City are running, and the Birmingham mill will get down to business in a few days, it is thought. The machine shops and foundries are busy, and on such work as will keep them going for some time. At the steel mill the demand is great, and everything possible is being done to meet it.

The rail mill is running night and day to meet the demand for the rails that has come from all parts of the country. The rail mill is being improved so that its output will be increased at least one-fourth. The work of putting in the converters at the steel mill is going on rapidly. They will almost double the output, and will be in by next summer.

H. W. L.

Reduction in Pig-Iron.

[Special Dispatch to Manufacturers' Record.] Birmingham, Ala., August 19.

At a meeting of operators here yesterday the price of iron was reduced \$1.50 per ton. No. 3 foundry is the basis, the new price for that grade being \$11.50.

H. W. L.

Brighter Pig-Iron Outlook.

Matthew Addy & Co. of Cincinnati, in their weekly report, say: "There is a very much rosier aspect to the pig-iron situation than has been the case for some months. The clouds seem to be rolling by and the sky is clearing. This has come about from the fact that buyers are doing what pig-iron makers and sellers always expect—they are buying. The long deadlock between the producer and consumer has been broken and the consumer is purchasing pig-iron. Incidentally it might be mentioned that consumers have rather had their way in the matter of prices, which have declined until they are now on the level of January and February, 1902, when the great boom started. The furnaces have little by little made concessions in prices until now they are very nearly on a parity with the cost of production. In fact, at the current market prices there are many furnaces that probably will have difficulty in making both ends meet. So from a furnace standpoint the situation might be much better, but the momentous fact is that consumers are buying once more. There is a decided purchasing movement in progress, and if this gains force, as seems likely, it may ultimately very much change matters. There has been no accumulation of iron that amounts to anything. The good grades are only in fair supply. Most of the iron that is piled on furnace yards consists of undesirable grades. The entire furnace stocks now on hand are a mere bagatelle anyhow, as compared with the weekly consumption."

An Explanation.

The Iron Age in its review of the week says:

"Undue importance has been attached to the announcement that the associated Southern furnace companies have reduced the price of No. 2 foundry from \$13.50 to \$12, Birmingham. As in previous reductions in the official price, the associated furnacemen have again merely recognized the settling of the market on the part of the independent producers. For some weeks quotations on Southern foundry iron have been based on a \$12 rate. The official reduction can therefore hardly be characterized as a cut. The action thus taken, however, has some significance in showing that the associated producers recognize that iron cannot be marketed above \$12, Birmingham."

A SOUTHERN NEED.

Supply of People Not Equal to Opportunities.

[New York Sun.]

We have shown by statistics from the census of 1900 that the Southern States contain a white population which is far more distinctively American in its stock than the population of any other part of the Union. In all the eleven States of the old Southern Confederacy there were in that year less than one-half as many foreign born as there were in the city of New

York alone, and of the number more than one-half were in the single State of Texas, and even there the foreign-born population was not 6 per cent. of the whole.

Our publication of these facts provoked from many Southern papers expressions of pride because of the distinction of the South as peculiarly the seat of an American population. But is there reason for this glorification? Fifty years ago, in the days of the old Know-Nothing agitation, the most gloomy predictions of the consequences to this republic of the great flood of immigration which began to pour into it after the Irish famine were heard on all sides, and it is noteworthy that the last traces of Know-Nothingism as a political force remained in the border States of the South. To that part of the Union, however, very little of that immigration had turned, and the statistics to which we have referred prove that of the millions of immigrants who have come over since that period, almost none have gone to the South.

Instead of the South's gaining by this diversion of the stream from it, there has been a loss to it of a population which has been of inestimable value to the development of the resources of the Eastern and Western States and in broadening and enlightening their civilization. In every way, materially, politically and socially, these States have profited by the addition of the millions of foreigners, and the South is today suffering because its population has not been recruited in the same way. Of course, while slavery continued this foreign labor avoided the South, but under the conditions of freedom in the South at present there ought not longer to be any such bar to foreign immigration.

Enterprising and public-spirited men in the Southern States are now recognizing the advantage to that part of the Union which would come from the extensive diversion of the stream of immigration from the North to the South. An immigration league, representative of more than fifty trade associations in the States of Alabama, Louisiana, Mississippi and Texas, has been formed for the purpose of stimulating immigration to the South, foreign and domestic. It hopes to draw thither 1,000,000 immigrants during the next few years, and the great railroads of the South are assisting the scheme by sending out freely information of the advantages the South offers to such immigrants.

The Southern Railway, for example, publishes a monthly paper, called the Southern Field, for gratuitous circulation, which is devoted exclusively to the celebration of the Southern States generally, and particularly the regions through which its system passes, as peculiarly attractive to immigration. It undertakes to demonstrate that even in districts lying in the neighborhood of large and growing towns the prices at which land is obtainable are, to use its own expression, "phenomenally low." "The supply of people," it says, "has not equalled the supply of opportunities," and the many offers of such land it publishes seem to justify the assertion.

Of the immigration of nearly a million to the United States for the fiscal year ended with June, about one-quarter was from Italy alone, from Southern Italy almost exclusively. A great part of these Italian immigrants are peasants, and nowhere else in Europe is there closer farming than in Italy. They would seem to be adapted especially to Southern agricultural conditions. It is true that almost universally they are poor, and consequently unable to purchase land, even at the "phenomenally low" prices of the South; but as agricultural laborers they would seem to be desirable. Here in New

York these Italians are getting ahead rapidly. They are peculiarly thrifty, and a few years after their arrival they have put by money, almost universally. A large part of the tenement-houses in the Italian districts are passing into Italian ownership.

The Southern Field acknowledges the unquestionable fact that many Southern people are hostile "to the introduction of a large foreign element," on the ground that the "marked American characteristics which dominate everywhere in the South" ought to be preserved, first of all. But they are shortsighted. The South is in peculiar need of the introduction of an element which has been so valuable and so necessary a factor in the development of the North. It needs the white foreigners as an offset to the negro labor, on which it is now dependent so generally. It needs the new direction to its civilization they would give. Instead of the million immigrants, foreign and domestic, for whom the league of which we have spoken is seeking, the Southern States, now so thinly settled, ought to attract millions, and so far as a social transformation results it will be advantageous.

Literary Notes.

Life of John C. Calhoun. Being a view of the principal events of his career and an account of his contributions to economic and political science. By Gustavus M. Pinckney. Publishers, Walker, Evans & Cogswell Company, Charleston, S. C. Price \$1.50.

This work is a departure from the conventional biography. Through a sympathetic medium of well-balanced judgment the subject is permitted to be an exposition of himself as a powerful factor in the making of American history, past and future. The exposition will be a revelation to students who have been obliged to choose between the offensiveness of hostile critics of Calhoun and the defensiveness of those who would give to him superhuman qualities, and will appear as a distinct novelty to readers who have a hazy notion that Calhoun was the oldest politician produced by the South and the framer of a sophistry which, practically applied after his death, had its logical sequence in the ruin of the South. This false impression, due to inadequate reading backward of the career of Calhoun, has its correction in the method employed by Mr. Pinckney and in the matter, largely extracts from the words and writings of Calhoun, selected by him. He pictures the great South Carolinian as administrator and legislator in his attitude toward commerce, finance, the internal politics of the country and its relations with foreign parts, not as a changeling, but as devoted to the federal Union, as profoundly impressed with the importance of the conservatism of the South in the maintenance of that Union as it came from the fathers, and, above all, perhaps, as the expounder of the principle that respect for the rights of the minority was of fundamental importance for the healthy growth of the United States upon constitutional and safe lines. In that respect the light of today shines clearly upon the prophetic mind of Calhoun, unconsciously working out though he was the earlier prophecy of George Mason of Virginia. In offering the means for emphasizing that feature of Calhoun's life Mr. Pinckney has strengthened the hands of those Americans who refuse to accept the doctrine, selfishly soothing to one generation, but full of danger for succeeding ones, that existing social and political conditions cannot be reformed, and that it is impossible to return to the prin-

ciples which animated the founders of the Republic.

The Rise and Progress of the Standard Oil Co. By Gilbert H. Montague. Publishers, Harper & Brothers, New York. Price \$1.

This study of the Standard Oil Co. is the outgrowth of an investigation made by Mr. Montague while a student at Harvard University. His sources are the reports of official investigating commissions and committees, among them the Hepburn committee, appointed in 1879 by the legislature of New York to investigate railway abuses, the congressional "trust" committee of 1888 and the industrial commission of 1898. The study begins with the refining of petroleum at Cleveland, Ohio, by John D. Rockefeller in 1865, and is brought down to the present-day competition in Russia between the Standard and the Nobel Company. The author takes the position that for historical accuracy must be known the standards set by the railway management in the early stages of the oil business, inasmuch as that business was the reflex of prevalent railway methods; he sketches the struggle of refiners for transportation facilities, the later economies in refining, the gradual dominance of the Standard, and its subsequent policies. His conclusion is that "the power of the Standard Oil Co. is tremendous, but is only such power as naturally accrues to so large an aggregation of capital, and in the persistence with which competition against it has continued, in the quickness with which that competition increases when opportunity for profit under existing prices appears, and in the ever-present possibility of competition which meets the Standard Oil Co. in the direction in every part of its policy, lie the safeguards against the abuse of this great power."

The Southern Field.

The latest issue of the Southern Field devotes considerable space to pointing out the irresistible tendency of great interests which are geographically far apart—like the meat-packing and cotton-manufacturing interests—to come together in the South and unite along lines of more economical production. In line with this thought the Field addresses this appeal to the Northern and Western farmers: "The relation of cotton and wool in the hands of the manufacturer, the merchant and the consumer is obvious and intimate. This relationship should begin at the logical point of the first production in adjoining fields on the same home farm, in close proximity to the local mill, in the only section of this country where the two great textiles may be produced side by side—the South."

The Northern and Western farmers should feel more than a passing interest in the revolution which is transferring the great textile interests of the country to the South. Self-interest should make him a part of that revolution.

The Field describes the life of the little colony of Waldenses on the Southern Railway at Valdese, N. C., and points to their remarkable success under exceptional difficulties as a signal indication of the foreign colony idea where the right sort of material is selected. As usual, the Field comes to the assistance of the prospector and investor with pertinent observations and suggestions touching business opportunities at various points in all sections traversed by the great and growing Southern Railway system. The publication is issued by M. V. Richards, land and industrial agent Southern Railway and Mobile & Ohio Railroad, Washington, D. C., and will be mailed to any address upon application.

RAILROADS.

[A complete record of all new railroad building in the South will be found in the Construction Department.]

THE SEABOARD DEAL.

Effect of the Great Combination—Possible Extension.

Concerning the recent Seaboard Air Line deal the weekly bulletin of John L. Williams & Sons, bankers, of Richmond, Va., in which firm President John Skelton Williams of the Seaboard is a partner, denies reports that either the Southern Railway or the Atlantic Coast Line, or their allied interests have acquired an interest in the property. Continuing, the bulletin says:

"The Seaboard Air Line system and the Rock Island system are in no wise competitive. An examination of the map will readily disclose the great advantages and benefits which would naturally arise from close co-operation and alliance between these two properties. The Rock Island system brings the Seaboard system in direct contact with the great graineries and storehouses of the West, Northwest and Southwest, while the Seaboard furnishes the Rock Island a direct outlet to seven important seaports on the Atlantic and Gulf coasts, including Baltimore, Norfolk, Va., Wilmington, N. C., Savannah, Ga., Fernandina, Jacksonville and Tampa, Fla., and furnishes the shortest and most direct route, with favorable grades, from Kansas City to tidewater. Work is being rapidly pushed on the Seaboard's Birmingham extension, which is to be finished early in 1904."

Reports from Augusta, Ga., and Charleston, S. C., say that the Seaboard deal has aroused great interest there because it is believed that the projected short line from Atlanta to Charleston, via Augusta, may now be constructed. The plan was to build from Athens, Ga., on the Seaboard, to Augusta, and thence to tidewater at Charleston. A survey was made several years ago, among those interested being Mr. John Blair MacAfee of Philadelphia, a well-known builder of railroads.

Mr. H. Clay Pierce, chairman of the board of the Mexican Central Railway, who is now elected a director in the Seaboard, as well as in the Frisco system, is reported in a New York dispatch as denying a report that the Mexican Central will be merged with the Rock Island, Frisco and Seaboard, and as further saying that it will positively continue to be operated indefinitely as heretofore.

A TEXAS ELECTRIC LINE.

Plans of the Beaumont, Sour Lake & Port Arthur Traction Co.

It is reported from Beaumont, Texas, that the Beaumont, Sour Lake & Port Arthur Traction Co., recently organized with \$300,000 capital, has applied for a charter, and has taken over the properties of the construction company now building the line between Beaumont and Sour Lake, and will complete that work. It is also stated that the company will not take over the projected Beaumont, Port Neches & Port Arthur Electric Railway, as was rumored, but will build a separate line between those points. This deal, it is stated, has resulted in the purchase of the electric railway interests of Edward Kennedy.

The directors of the new company are G. W. Meeker, B. R. Norvell, Wm. Wiess, Capt. G. W. O'Brien and R. C. Duff of Beaumont, Geo. A. Hill of Sour Lake, George M. Craig of Port Arthur, John B. Linn of Springfield, Ohio; Wm. Abbott Smith, Hugh E. Smith and Theodore Weyant of Columbus, Ohio. The incorpo-

rators also include W. C. Averill and G. W. Carroll of Beaumont, and J. M. Carpenter of Sour Lake.

R. C. Welles is superintendent of construction, and George W. White, chief engineer, with J. B. Linn as consulting engineer. The lines are to be operated on the multiple unit control system, and the cars run will be large, some of them sixty feet long. Mr. Meeker is reported as saying that twelve miles of grading have been completed between Beaumont and Sour Lake, and that tracklaying will be started within ten days, much of the steel having already arrived.

A dispatch from Sour Lake says that the survey for an electric line between Sour Lake and Houston has been completed. Mr. Kennedy is also reported to be interested in this project.

A TRUNK LINE PROJECT.

Plans of the Denton, Decatur & Western and North Texas & Louisiana Railroads.

Mr. M. J. Healy, vice-president and general manager, writes from Canadian, I. T., to the Manufacturers' Record saying that the Denton, Decatur & Western Railroad and the North Texas & Louisiana Railway have been chartered to construct and operate a line from Decatur to McKenney or Greenville, Texas, and east to Mansfield or Alexandria, La.; also west from Decatur, Texas, to Rosewell, N. M., a total distance of about 700 miles, passing through the pine forests and cotton section of Louisiana and the rich grain and cotton belt of Northern Texas, and then crossing the plains of Texas and the range country, making a trunk line from the Gulf of Mexico to the far West and to Old Mexico, besides opening up thousands of acres of land in the northern and western portions of Texas to homeseekers. Construction is to begin at an early date, or as soon as the necessary arrangements can be made. Correspondence relative to the line should be addressed to Mr. Healy at Canadian, I. T., until September 1, and after that date at Decatur, Texas, or the secretary, W. A. Miller, may be also addressed at Decatur.

Mr. Healy also informs the Manufacturers' Record that officers and directors for both companies have been elected as follows: W. Henry Sisson, president, St. Louis, Mo.; J. L. Morton, vice-president, Ann Arbor, Mich.; Wesley Sisson, assistant to the president and general manager; Will A. Miller, secretary and treasurer; J. H. Carswell, general attorney; Stuart Miller, general real-estate agent, all of Decatur, Texas, and James R. Turner, fiscal agent, American Surety Co., New York, N. Y.

TO HANDLE COTTON.

Storage Facilities Increased by Railroads at Savannah.

Advices from Savannah, Ga., state that the Seaboard Air Line, the Atlantic Coast Line and the Central of Georgia Railway are arranging to handle there the largest cotton crop known to the history of that port. Storage facilities are now being prepared by the erection of new sheds and by improvements for the protection of 75,000 bales of cotton.

The Atlantic Coast Line is building two new sheds, one 522 feet long by sixty-four feet wide, and another 400 feet long by 120 feet wide, these being in addition to two other large sheds, each 400 by 100 feet. This, it is stated, will enable the company to store 25,000 bales on end and leave alley-ways to facilitate handling.

The Seaboard is building an entirely new shed, 250 feet long by 100 feet wide, and the existing sheds are being extended within ten feet of the wharf front. This will increase the capacity of the company's terminals to 25,000 bales.

Improvements to the terminals of the Central of Georgia Railway are also being made, and it will, it is stated, thus be enabled to store more cotton than either of the other two companies.

COAL AND COKE ROADS.

Extensions Expected by Two Companies to Tennessee Mines.

Mr. J. M. Overton, vice-president and general manager of the Bon Air Coal & Iron Co., Nashville, Tenn., writes the Manufacturers' Record regarding the property of the North American Coal & Coke Co. and its purposes as follows:

"The property which this company now owns, amounting to about 40,000 acres of coal and timber lands, lies in Cumberland county, Tennessee, entirely on the Cumberland plateau. Most of the property is underlaid with the Bon Air vein, and also a vein of very superior coal for coke manufacture. An extension of the Nashville, Chattanooga & St. Louis Railway and the Tennessee Central Railroad will penetrate the territory probably within the next twelve months. The company does not contemplate opening mines itself, but will probably foster improvements upon the lease system. The stock of the company is held by New York, St. Louis and Nashville parties. The officers are: President, Eugene D. Hawkins, New York, N. Y.; vice-president and general manager, J. M. Overton; treasurer, E. A. Faulhaber, and secretary, Overton Fulton, all of Nashville, Tenn."

AROUND THE GLOBE.

Reported Plans of the Goulds and the "Orient" Railway.

Dispatches from New York quote Edward Dickinson, vice-president and general manager of the Kansas City, Mexico & Orient Railway, as saying that the company will build 200 miles of branches in Mexico to silver mining districts, and that bonds of the International Construction Co. to the amount of \$3,000,000 have been sold for this purpose.

It is further reported that the Gould interests and the Hamburg-American Steamship Co. and the Kansas City, Mexico & Orient Railway have made an arrangement by which the globe will be practically girdled. The steamship company will run a line from the Orient's terminal on the Bay of Topolobampo, Mexico, to China, Japan and Australia, under a traffic arrangement with the railroad, while the company's fleet sailing from Baltimore across the Atlantic will be strengthened. According to this report, freight from the Gould lines will go west to Asia via Port Stillwell and east to Europe via Baltimore.

New Electric Plans.

Among the recently-incorporated inter-urban roads in the South is the Mannington & Fairmont Electric Railway Co., which proposes to build a line between those towns in West Virginia. It will be about twelve miles long. The capital is \$150,000 and the incorporators are: W. H. Furbee, J. T. Koen, F. W. Bartlett, A. L. Prichard, J. D. Huey, F. A. Prichard, C. E. Joliffe, E. J. Thomas, A. C. Free, C. A. Snodgrass, C. R. Snodgrass, J. F. Beatty, E. C. Hartin and M. L. Bernidum.

Another corporation is the Southern Kentucky Interurban Traction & Power Co., which is to build an electric railway from Russellville, Ky., through the counties of Logan, Simpson, Warren, Allen, Butler, Muhlenberg, Todd and Christian in that State. The incorporators are C. W. Courts, J. M. McCutcheon, J. C. Browder, J. R. Crowder, R. P. Manley, R. R. Clark, J. W. Clark and H. S. Mc-

Cutcheon, all of Russellville, Ky., and W. P. Bainbridge of Trenton, N. J.

A dispatch says that the incorporators are now busy getting rights of way and that Bowling Green and Hopkinsville will be the termini, also that the line will open up a country rich in agriculture, mines and timber.

Little Rock & Monroe.

The Little Rock & Monroe Railway Co., which is said to be a wholly independent corporation, has been granted a charter in Arkansas and will probably furnish a link in a new line from Little Rock to New Orleans. It proposes to build fifty miles of road from either Lapile or Felsenthal, Ark., the latter being a new town at Lake Landing, on the Eldorado & Bastrop Railway, to Monroe, La., crossing the Ouachita river probably at Ouachita City. T. J. Gaughan, attorney for the company is reported as saying:

"The line has been finally located about thirty miles and the contract for the first twenty miles has been let to Contractor Dodson, who built the Arkansas Southern and the Eldorado & Bastrop. The first twenty miles is to be completed by January 1."

The directors are: C. D. Johnson, president, St. Louis; E. A. Frost and E. W. Frost, Texarkana, Ark.; J. F. Rutherford, Pine Bluff, Ark., and J. E. Cavanagh, Lapile, Ark.

Memphis Street Railway Plan.

Application has been made to the legislative council at Memphis, Tenn., by F. R. Harris, Rhea P. Cary, W. A. Buckner, T. F. East and M. M. Bosworth of St. Louis for a street railway franchise for a new company to be known as the City Street Railway Co. The applicants, in consideration for the franchise, have, it is reported, offered the city 1 per cent. a year of the gross receipts for the first ten years and 2 per cent. for the other forty years of the franchise. It also proposes to give and accept free transfers to and from other street-car lines. The line projected is to run over thirty streets, and will touch many other thoroughfares.

Deepwater Railway's Progress.

Mr. William N. Page, president of the Gauley Mountain Coal Co., Ansted, W. Va., writes the Manufacturers' Record that the Deepwater Railway has been located from Deepwater, on Pool No. 2 of the Kanawha Navigation, in Fayette county, West Virginia, to the Pinestone river, in Mercer county, a distance of ninety miles. Five miles of this line have been completed and are now in operation, while fifty-one miles are under contract, with grading in progress. The remaining thirty-four miles of construction will be let as soon as the rights of way can be finally arranged. Mr. Page is also chief engineer of the line, and C. P. Howard of Beckley, W. Va., is the assistant chief engineer in charge.

Aberdeen to Pensacola.

The Columbus, Pensacola & Memphis Railway Co., which proposes to build a line from Aberdeen, Miss., via Columbus, Miss., and thence through Alabama to Pensacola, Fla., about 250 miles, has applied for a charter. The application is signed by Judge Newman Cayce, Walter W. Weaver, Warren Cox, John A. Stinson, E. C. Chapman and P. W. Maer of Columbus; W. B. Walker of Aberdeen, and Judge J. W. Buchanan of Memphis. This line will connect with the Frisco system and also with the Illinois Central at Aberdeen.

Midland Valley Route.

Messrs. Eby & Stocker, railroad contractors, of Ada, I. T., write the Manufacturers' Record confirming the report that they have part of the contract for construction of the Midland Valley Railroad, and saying that it connects with the Greenwood branch of the St. Louis, Iron Mountain & Southern Railroad at Greenwood, Ark., and runs westward, crossing the Mansfield branch of the Frisco system at Montreal, the main line of the Paris division at Cameron, the Kansas City Southern Railroad at Panama, and connecting up with the Fort Smith & Western at Bokoshe, I. T. A branch runs from Montreal to Hartford, Ark. As heretofore stated, the chief engineer is Mr. F. A. Molitor of Fort Smith, Ark.

Through Kentucky Coal Lands.

Mr. Joseph Huffaker of Louisville, Ky., one of the incorporators of the line, writes the Manufacturers' Record as follows:

"The Madisonville Traction Co. expects to build a line of railway from Madisonville to Nortonville or White Plains to a connection with the Illinois Central Railroad. The length of the proposed road is about thirteen miles, and the line passes through coal-mining districts, while a large undeveloped coal and timber district will be reached by the extension.

"The capital stock of the company is \$100,000 subscribed, with privilege of increasing it to \$350,000. As yet we have not employed a permanent engineer, nor is the date of receiving bids for construction and equipment fixed."

To Develop Timber Territory.

The Hollins, Heflin & Sylacauga Railroad proposes to build an extension of twelve miles immediately from Woodbine to Moriah, Ala., the grading contracts being now ready to let. This extension will run through a body of fine yellow-pine timber, the property of the Kaul Lumber Co., of which John L. Kaul of Juniata, Ala., is president and treasurer. The railroad, which is a standard-gauge line, conducting only a freight business, is already in operation between Overbrook, on the Central of Georgia Railway, to Woodbine, eight and one-quarter miles. It has four locomotives and sixty cars. The chief engineer in charge of construction is John A. Edwards of Juniata.

Caney River Extension.

R. L. Dyer, chief engineer of the Caney River Railroad, writes the Manufacturers' Record from Johnson City, Tenn.: "We are building a line from Hunt Dale, Mitchell county, North Carolina, to Bald mountain, Yancey county, North Carolina, a distance of eighteen miles. We connect with the South & Western Railway at Hunt Dale, N. C., and there is a chance for an extension from Bald creek, a point on our line, ten miles from Hunt Dale, to Burnsville, the county seat of Yancey county, and having a population of 1000. The length of this possible extension is twelve miles from Bald creek to Burnsville."

Railroad Notes.

Reports from Portsmouth, Va., say that the Rock Island, Frisco and Seaboard Air Line interests have obtained extensive options on property along the entire water front there for the purpose of building large tidewater terminals for use by the combined systems.

George A. Clarke, general manager of the Tennessee Central Railroad, is reported as denying the statement that the Illinois Central has acquired or would acquire control of the line. He says that the rumor is absolutely groundless. Mr.

Clarke further stated that work on the extensions will be diligently prosecuted.

The joint extension of the Santa Fe and Rock Island systems between Chickasha and Paul's Valley, I. T., has been opened for business. This line was to have been opened on June 15, but floods washed out most of that portion between Chickasha and Lindsay.

The Middle Creek & Gauley Railroad Co., to build a line from at or near the mouth of Middle creek, Clay county, West Virginia, to Gauley Bridge, in Fayette county, has been incorporated, with its principal office at Charleston, W. Va. The incorporators are W. E. R. Byrne, Henry S. Cato, Samuel Stephenson, Russell G. Quarrier of Charleston, and E. L. Boggs of Big Otter.

L. W. Robert, chief engineer of the Brunswick & Birmingham Railroad, is reported in a dispatch from Ocilla, Ga., as saying that the extension will be completed to that place within ten days, making a connection with the Ocilla & Irwinville Railroad, lately purchased by the Brunswick & Birmingham. The same dispatch also reports that property in Ocilla and its vicinity has greatly increased in value within the last year, and the town is enjoying a substantial and steady growth.

A Good Roads Meet.

The Moore county good roads congress will meet at Lakeview, N. C., on September 7. Prominent speakers from Washington and elsewhere are expected to be present, and a public demonstration of road-building will be made under government supervision. It is announced that makers of road machinery can secure demonstration privileges free of charge by addressing Mr. J. N. Swanson of Lakeview, secretary of the good roads committee. The Seaboard Air Line will run a special excursion from Raleigh to Lakeview on the day of the congress.

F. Braasch of Caracas, Venezuela, writes to the Manufacturers' Record that he acts as a general representative for Venezuela of manufacturers of lard, candies, biscuits, butter, hams, shoe leather, telegraph wire, dry goods, shoeblacking, rope, hardware, etc., on terms based upon cash sales, or works on commission, and that he conducts an information bureau, charging a small fee for information given.

J. Dufourny of Charleville, France, writes to the Manufacturers' Record that as a foundry and smelting master he is in a position to find a market for American manufacturers of machinery and other iron products, but that correspondence with him should be in French.

Max Goldstein, No. 92 Motz street, Berlin, Germany, writes to the Manufacturers' Record that he has located in Berlin and seeks agencies for well-established American factories, principally those in textile lines.

Ramir Garcia Suarez, No. 4 Victoria Place, Madrid, Spain, writes to the Manufacturers' Record that he desires to get into communication with American manufacturers of electric automobiles.

Gemha Abia & Sons of Beyrouth, Syria, write to the Manufacturers' Record that they desire bottom prices on galvanized iron in sheets, 100 packages six by three, of varying weights.

The sales in the Joplin (Mo.) district during the week ended August 15 were 9,792,800 pounds of zinc ore and 1,008,000 pounds of lead ore of an aggregate value of \$197,075.

TEXTILES.

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Correspondence relating to textile matters, especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the Manufacturers' Record. We shall be glad to have such matter at all times, and also to have any general discussion relating to cotton matters.

Big Bleachery Completed.

An important addition to the Southern textile industry is seen in the announcement that the Union Bleaching & Finishing Co. has completed its plant at Greenville, S. C. The buildings occupy about 90,000 square feet of floor space, and the equipment has a capacity of about 100,000 yards of cloth, which weighs about ten tons, per day. All kinds of cotton piece goods will be bleached, dyed and finished by the most modern methods. The cost of this plant was about \$200,000. Among the capitalists who are directors of the company are Messrs. James B. Duggan (president) of Utica, N. Y.; B. N. Duke (vice-president) of New York and Durham, N. C.; James B. Duke, Thomas F. Ryan and Anthony N. Grady, each of New York city; W. A. Erwin of Durham, N. C., and others. Full details as to this extensive finishing establishment were presented in the Manufacturers' Record last November, when the organization of the company was announced. This plant will enable many Southern mills to cease sending their product to New England for finishing.

Propose a 10,000-Spindle Mill.

Reference was made last week to reports stating that S. F. Harrill, manager of the West (Texas) Cotton Mills, is interested in establishing a large cotton mill at Marble Falls. The reports are correct, and M. H. Reed of Marble Falls is among those interested. The projectors have purchased stone building two stories high, 100 x 200 feet in size, erected for a woolen mill, but never utilized. The purchase also includes water-works, electric-light franchise and the water-power of the famous Marble Falls, and all that is necessary to get 1200 horse-power is to build a power-house and install the wheels, the necessary masonry having already been completed. In addition to this is owned eighty-five acres of land, which will be the site of operatives' dwellings and other buildings. It is proposed to put this property into a cotton-mill corporation to be formed as soon as the necessary stock is subscribed to equip a 10,000-spindle mill. Part of the amount necessary has already been subscribed.

Has Awarded Contract.

In June the Manufacturers' Record announced the organization of the Lafayette Cotton Mills of Lafayette, Ga., capitalized at \$100,000. This company has now awarded contract to R. L. Westcott of Chattanooga, Tenn., at about \$35,000 for the brick work on the buildings required. Contract for the textile machinery was awarded some weeks ago, and J. L. Hill of the Southern branch of the Lowell (Mass.) Machine Shops, is the engineer in charge. As previously stated, the equipment will be 4000 spindles and 128 looms to begin operation with. Probably 1000 spindles and 32 looms will be added after the first installation is in operation. The completed mill will employ about eighty operatives, manufacturing cloth. J. E. Patton, a local banker, is president; P. D. Fortune, vice-president;

W. A. Nichols, secretary-treasurer, and E. Montgomery, superintendent.

Manufacturing Fine Yarns.

The Manufacturers' Record has received definite advices from Spray, N. C., that the Morehead Cotton Mills of that city will expend from \$80,000 to \$100,000 for improvements to its plant. An additional 4000 spindles will be installed within six weeks, together with complementary machinery, for the production of fine yarns. The Morehead plant at present has 4000 spindles, and is capitalized at \$100,000. This is one of the various textile enterprises at Spray controlled by B. Frank Mebane and his associates. They are making extensive enlargements to their established mills and erecting new plants, particulars of which were announced about two months ago.

Willingham Improvements.

Because of the increased demand for its product, the Willingham Cotton Mills of Macon, Ga., will make important improvements and enlargements. The erection of an additional building eighty feet square has begun, and the structure will be completed as soon as possible. Contract for the additional machinery, mainly looms for weaving heavy numbered duck and canvas 120 inches wide, has been awarded to the Crompton & Knowles Loom Works of Worcester, Mass. The Willingham plant at present has 11,200 ring spindles and 200 looms, its product being numbered duck, hose and belting duck.

A \$12,000 Knitting Mill.

Arrangements have been made for the establishment of a knitting plant at Augusta, N. C., by J. D. Hodges and associates. A building is now being erected, and machinery for manufacturing children's ribbed hosiery will be installed. It is proposed that the entire investment amount to about \$12,000, and the enterprise will be enlarged as demand requires after it is in operation. Mr. Hodges is prepared to correspond with makers of knitting machines and power plant regarding the contract for equipment.

Yarns for Hosiery Mill.

In the Manufacturers' Record of July 30 brief reference was made to the fact that T. J. Matthews of Sylacauga, Ala., had decided to equip a mill for the manufacture of yarns, investing about \$25,000. Mr. Matthews has now completed arrangements, and will expend about \$10,000 more than was previously announced. He is now installing the mill, to consist of 3000 spindles, which will manufacture the yarns to be used by his Marble City Hosiery Mills in the production of full and half-hose. The hosiery plant has ninety-eight knitting machines, manufacturing 1000 dozen pairs daily.

A Cotton-Picking Machine.

The American Cotton Picker Co. of Pittsburg, referring to the arrangements which they have made for testing their picking machine during the coming season, say:

"We have leased Westdale plantation, located on the Red river, about forty miles east of Shreveport, La. It is our intention to make it a modern plantation in every respect. We are installing new gins, a separate seed-cotton storehouse equipped with a dryer and cleaner, and will also have in addition to our machines with mule power three cotton-pickers driven by 30-h.-p. gasoline engines."

Pendleton Cotton Mills.

The Pendleton Cotton Mills, recently announced as incorporated at Pendleton, S. C., with capital of \$65,000, will build

for a plant of 3120 spindles. Stuart W. Cramer of Charlotte, N. C., is the architect and engineer in charge, and has prepared plans and specifications. The building will be 75x120 feet in size. It will probably be built by day labor. Nos. 20 to 30 yarns will be the product. J. J. Sitton is president of the company.

Textile Notes.

Pelham (Ga.) Manufacturing Co. contemplates the installation of seventy-two additional looms.

It is reported that Thomas Davenport of Pittsburg, Texas, is endeavoring to establish a woolen mill.

J. E. Smith Manufacturing Co., Thomson, Ga., contemplates enlarging its yarn mill of 3120 ring spindles.

J. W. Shibley is interested in the efforts being made at Seneca, S. C., to build the cotton mill mentioned last week.

John J. Dalton, civil engineer, of Asheville, N. C., is investigating a water-power for capitalists who propose building a cotton mill at Asheville, N. C.

Slayden-Kirksey Woolen Mills of Waco, Texas, states that there is no truth in the report that it will be interested in erecting a branch mill at Shreveport, La.

Mandeville Cotton Mills, Carrollton, Ga., mentioned last week as adding new machinery, is not increasing its spindles or looms, but merely making some minor improvements.

The Chamber of Commerce at Knoxville, Tenn., is negotiating with parties who propose establishing a \$25,000 knitting mill. Names of the projectors cannot be announced as yet.

It is proposed to establish an industrial and silk-culture school at Tallulah Falls, Ga. This school is designed to be for teaching the art of silk-raising and manufacturing. Louis B. Magid, W. R. Sweet and Miss White have been appointed as a committee to obtain the State charter.

Messrs. J. Hugh Ditto and H. K. Ditto and Mrs. Clara L. Ditto, all of Owensboro, Ky., have incorporated the Owensboro Woolen Manufacturing Co. of Owensboro, Ky., to operate a woolen mill. The capital stock is \$20,000. No details as to equipment of the plant have been announced as yet.

The Ada Manufacturing Co.'s mill at Charlotte, N. C., was sold on the 18th inst. in accordance with the recently-announced plan to go into voluntary liquidation. J. H. Weddington, one of the stockholders, was the purchaser at \$62,250. There are 8000 ring spindles, 4000 twisting spindles, steam-power plant, etc., included in the plant. It is reported that a new company will be organized to add looms and put the mill in operation.

QUOTATIONS OF COTTON YARNS.

By Buckingham, Paulson & Co., New York, Philadelphia and Chicago, August 18.

No. 10s-1 and 12s-1 warps.....	18 @18 1/2
No. 14s-1 warps.....	18 1/2 @19
No. 16s-1 warps.....	19 @
No. 20s-1 warps.....	20 @
No. 22s-1 warps.....	21 @
No. 25s-1 warps.....	22 @
No. 6s to 10s yarn.....	17 @
No. 12s-1.....	17 1/2 @
No. 14s-1.....	18 1/2 @
No. 16s-1.....	19 1/2 @
No. 20s-1.....	20 @
No. 22s-1.....	21 @
No. 25s-1.....	21 1/2 @
No. 8s-2 ply soft yarn.....	18 @
No. 10s-2 ply soft yarn.....	19 @
No. 10s-2 ply hard.....	17 1/2 @
No. 12s-2 ply hard.....	18 @
No. 14s-2 ply.....	19 @
No. 16s-2 ply.....	19 1/2 @
No. 20s-2 ply.....	21 1/2 @
No. 21s-2 ply.....	22 1/2 @
No. 25s-2 ply.....	23 1/2 @
No. 30s-2 ply yarn.....	24 1/2 @
No. 40s-2 ply.....	27 1/2 @
No. 5s-3, 4 and 5 ply.....	22 @
No. 20s-2 ply chain warps.....	22 @
No. 21s-2 ply chain warps.....	23 @
No. 25s-2 ply chain warps.....	24 1/2 @
No. 30s-2 ply chain warps.....	25 1/2 @
No. 16s-3 ply hard twist.....	19 1/2 @
No. 20s-3 ply hard twist.....	22 @
No. 25s-3 ply hard twist.....	23 @

Prices nominal.

LUMBER.

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

LUMBER MARKET REVIEWS.

Baltimore.

Office Manufacturers' Record, Baltimore, Md., August 19.

The local lumber market has shown a moderate volume of trade during the past week, while transactions are about equal to a good average for this period of the season. Receipts of lumber have been liberal during the week, and stocks on hand are more than ample to supply the present demand. The situation in North Carolina pine shows an easier market for certain grades, notably in box lumber, which is quoted at \$11 to \$11.50; with this exception, however, the general list is fairly well maintained, while the demand is only moderate, and the market quiet. Cypress is holding its own, and prices are steady, with a better demand from builders. In poplar there is less activity than in July, and while mills are generally said to be well supplied with orders, there is less demand, especially for export. Prices, however, are about steady. White pine is quiet and steady, with the demand confined to immediate wants. In all hardwoods the tone is rather quiet, with the demand fair for nearly all woods in the open market. The advance in quarter-sawn oak is a feature of the market, prices ranging from \$75 to \$80 per 1000 feet for Western stocks. Ash is steady, with a good inquiry. The foreign export trade in hardwoods is inactive, and exporters are not increasing the volume of shipments while the markets of Europe remain in such an unsettled state.

Charleston.

[From our own Correspondent.] Charleston, S. C., August 17.

The week under review has been fairly active in almost every avenue of the lumber trade. The demand at this period of the season is usually light, but at the moment there are a number of inquiries from different points in the North and East which will result in considerable actual business during late August and early September. During the past week the shipments reported were as follows: Steamship Santure, for Philadelphia with 1,100,000 feet of lumber, and the schooner A. B. Sherman, for the same port, with 475,000 feet; schooner Sylvia C. Hall, with 330,000 feet; schooner Charles K. Buckley, 401,470 feet, and schooner Helen Montague, 308,700 feet, all for New York. The steamship Algonquin cleared for Boston, with 6800 feet of lumber, and schooner Edgar C. Ross, for Baltimore, with 309,788 feet. The bark Auburndale cleared for Washington, D. C., with 396,000 feet of lumber. The total for the week amounts to 3,327,758 feet. Since September 1, 1902, the shipments of lumber from this port amount to 63,827,202 feet, of which 62,280,702 feet were domestic and 1,546,500 feet were foreign. At Georgetown all the mills are very busy, and both cypress and yellow pine are being rapidly shipped to the usual points in the North and East. Prices are generally very steady, and the demand continues to show up in good shape for this period of the season. Reports from the interior are very encouraging and lumbermen generally, both in yellow-pine and hardwood report business as active with the outlook for a good autumn trade very encouraging. The first meeting of the South Carolina Lumbermen's Association was held on the 5th of August at Sumter, S. C., with

fifty members present. The association was organized recently at Florence. Among the important matters discussed were the car supply and the means to be adopted to secure better shipping facilities from the railroads. Executive, car-supply, arbitration and inspection committees were appointed. The association adjourned to meet at the call of the president. The officers are D. T. McKeithan of Lauber, president; T. W. Boyle, Greeleyville, treasurer, and H. J. McLaurin, Jr., Sumter, secretary.

Jacksonville.

[From our own Correspondent.]

Jacksonville, Fla., August 17.

There is a good, substantial trade in progress in almost every department of the lumber industry in this section, and while there is no urgent demand for lumber the receipts are being rapidly absorbed through an interior and coastwise demand. The shipments for July were larger than for any month in the history of this port, and for the present month a good average volume for export is anticipated. The local demand for lumber and other building material is increasing, and contractors and builders anticipate a very brisk fall and winter season, as a number of city improvements are projected and contracts closed for residences and other buildings. This port will soon have a harbor deep enough to admit large ocean-going steamers and sailing vessels, and while the lumber business is showing up in good form, the harbor improvements, when completed, will be most advantageous to all engaged in the trade. The dredging work on the St. John's river has commenced in earnest. It is the intention of the contractors to start the work from Dame's Point to the mouth of the harbor, and when that is completed the dredge will work from Dame's Point to the city front. Before the dredging work was commenced by the United States dredge Winjah Bay at that point the depth was only thirteen feet, but now the depth is over seventeen feet six inches. The Arthur will dredge until the depth of twenty-four feet is obtained. During the past week the following clearances were reported: Steamship Iroquois, for New York, with 400,000 feet lumber, 4000 ties, 3500 barrels naval stores, 5200 bundles shingles; steamship Thomas Winsmore, for Philadelphia, with 314,000 feet lumber; steamship Comanche, for New York, with 675,000 feet of lumber, 3100 sacks of clay, 4100 barrels naval stores, 1000 packages fruit and vegetables; British schooner Prosperare, for Port of Spain, with 370,092 feet of lumber; steamship Algonquin, for New York, with 600,000 feet of lumber, 2400 ties, 4200 bundles shingles, 900 packages naval stores; steamship Apache, for New York, with 400,000 feet of lumber, 3000 ties, 1500 barrels naval stores, 40 cases cigars; British schooner Harry N. Lewis, for Hamilton, Bermuda Islands, with 25,018 feet timber; the American schooner D. Howard Spear cleared for New York with a cargo of 400,000 feet of yellow-pine lumber; the American schooner Glenfield cleared for Fall River with a cargo of 380,000 feet of yellow-pine lumber. The Manatee Building & Lumber Co. will soon begin the erection of a large lumber storage shed at their mills. Lumber freights are steady at unchanged quotations. Charters reported for the week are: Schooner Hattie Dunn, 265 tons, Jacksonville to New York, with lumber, on private terms; schooner John W. Hall, 329 tons, from Palatka to Albany, N. Y., with dry cypress, at \$6 and towage, and schooner John Rose, 595 tons, from Fernandina to Philadelphia, with lumber at \$5.75.

Mobile.

[From our own Correspondent.]

Mobile, Ala., August 17.

The timber market is quiet and few sales have been reported during the week ending the 15th inst., prices for the sawn timber being easier at 16½ to 17 cents per cubic foot. The market for hewn timber is firm and fairly active, with light stocks in all the booms. Receipts of logs are also light and the market firm, with prices better than they have been during the past sixty days. A number of vessels are due to arrive within the next thirty days and a number chartered for late September loading, and lumbermen are of the opinion that business will be brisk in the early autumn. Shippers are already making efforts to contract for timber for future delivery and are not buying for present wants, as all vessels at Gulf ports at the moment are provided for. The lumber market is firm, and for primes shipments are going out from the mills as fast as cars can be had to load them. All the mills in this section have plenty of orders, while in the interior prices for common flooring are weak and lower and mills are refusing business offered at reduced prices. The demand for lumber from Cuba continues liberal, orders for 2,500,000 feet having been booked during the past week. At Pensacola there is no change to note in the pitch pine market, prices remaining firm, with a liberal demand. A large quantity of timber has been absorbed by the vessels in port loading, and the outward during the past thirty days has been larger than at any time in the history of the port. In July more than 38,000,000 feet left the port, and it is expected that over 50,000,000 feet will go out during the present month. The charters reported last week were as follows: British steamer Everingham, 1940 tons, Pensacola to Genoa, with timber at 86/3, October; a British steamer from the Gulf to Greenock, with timber at 77/6, September, and British steamer Oceano, 1730 tons, from Pensacola to Queensboro, with timber at 80/—, September.

Lumber Notes.

The plant of the Cuban-American Veneer & Transportation Co. at Tampa, Fla., was destroyed by fire last week. The loss is estimated at \$8000.

Craw & Sherrod of Stone, Ky., have purchased several hundred acres of timber land and are installing a saw-mill with capacity of 40,000 feet at Holly.

The E. W. Starke Lumber Co. has changed its name, and will hereafter be known as the Yale Lumber Co. of Yale, Bath county, Kentucky.

The Tennessee Timber & Lumber Co. of Trenton, Tenn., has been incorporated with a capital stock of \$5000. The incorporators are T. Harlan, Mark Morris, D. Weiss, Paul Harlan, Q. Rankin and Albert Biggs.

The creosote plant at Chalybeate, N. C., on the Raleigh & Cape Fear Railway, in Harnett county, is now in operation. It uses any kind of fat pine wood. William Robertson, formerly of Alexandria, Va., is manager of the plant.

The properties and mill of the Indian Creek Lumber Co. of Pine Hill, Ala., were sold last week to the Peter Vreedenburg Lumber Co. of Springfield, Ill. It is understood that the purchasers will immediately commence operations.

The Virginia Timber Co. of Huntington, W. Va., has been incorporated, with a capital of \$25,000, for dealing in timber lands and manufacturing lumber. The incorporators are F. B. Enslow, W. W. Miller, C. L. Porter and others.

At Salt Lick, nine miles east of Owings-

ville, Ky., the stove mill, warehouses and lumber-yards of W. J. Fell & Son of Pittsburg were destroyed by fire, entailing a loss of \$25,000. There was no insurance. It is not yet known whether the mills will be rebuilt.

It is stated that arrangements have been made for the shipment of a large quantity of Mexican cedar from the State of Tamaulipas through the port of Laredo, Texas, to the United States. This Mexican cedar is said to rank next to mahogany for making fine furniture.

The McKenney Manufacturing Co. of Dinwiddie county, Virginia, has been incorporated to conduct a general lumber and real estate business with a capital of \$3000 to \$25,000. The incorporators are B. E. Cogbill, J. R. Beck, H. M. Woolbridge, E. G. Cobb and Cyrus Dunn.

The Keith Lumber Co. of Beaumont, Texas, started its new saw-mill at Voth last week. The mill has a capacity of 75,000 feet a day. In connection with the mill is a dry-kiln of 40,000 feet capacity daily. A planer is being installed, and it is expected that it will be completed in about thirty days.

It is stated that E. W. Anderson, commercial agent of the Iron Mountain Railroad, while in Alexandria, La., last week signed 15-year contracts with the Enterprise Lumber Co. of that city for the handling of all logs to supply the mill, the capacity of which is 150,000 feet daily. The railroad will handle the lumber after it is cut.

The first trainload of logs ever delivered in Orange, Texas, overland arrived over the Orange & Northwestern Railroad last week consigned to the Litcher & Moore Lumber Co. The Orange & Northwestern has a contract with the Litcher & Moore Lumber Co. to deliver 20,000,000 feet of logs over its road, this being the first load received.

Mr. C. A. Alford has purchased the interest of B. J. Sloan in the firm of Alford & Sloan of Willingham, Ga. This is one of the largest saw-mill firms in that section, and has been in operation at Willingham for over twenty years. The firm owns immense bodies of timber and over twenty miles of railroad in Worth and Colquitt counties.

Mr. L. A. Weedon of Atlanta proposes to establish a factory for cutting hardwoods to be used for the purpose of making bobbins and spindles and other parts of machines used in cotton factories. The woods used will be dogwood, apple and several other varieties. The green blocks of wood will be sawed and shipped to finishing factories.

The new saw-mill plant of the Albert Hanson Lumber Co. south of Franklin, La., on Bayou Teche, is rapidly nearing completion. This mill will be one of the largest in the South and will be built and operated by home capital. The Hanson Company owns and controls a vast acreage of cypress timber, which will be marketed through this new plant.

The Standard Turpentine Co. of Raleigh, N. C., has been incorporated with a capital stock of \$10,000. The company will build wood turpentine plants and act as repairers, manufacturers and distributors of turpentine and other pine products. The incorporators are Thomas Dixon of New York, John W. Thompson and Thomas B. Womack of Raleigh, N. C.

Messrs. A. Garnealin and A. Gabe, prominent manufacturers of Stockholm, Sweden, were in Pensacola last week on a tour of that section of Florida for the purpose of inspecting saw-mill plants and witness the methods of manufacturing

lumber and the machinery in use. They propose inspecting the Jackson Lumber Co.'s plant at Lockhart and also the Alger-Sullivan plant at Century.

It is stated that Mr. H. Lyon Smith of No. 69 Wall street, New York, has purchased from Slemple & Irvine of Norton, Va., 80,000 oak trees on the Cumberland river, thirty miles above Jackson, Ky. These trees measure not less than twenty-four inches three feet above the ground and constitute one of the finest timber tracts still standing. Mr. Smith's purchase was made as an investment.

The A. Hubbard Lumber Co. of Paterson, N. J., has just purchased from H. W. Ford & Co. of Nashville a tract of 5000 acres of hardwood timber lands in Franklin county, where the company will erect and operate a large saw-mill. It is estimated that there are many millions of feet of pine, poplar, oak, ash, chestnut, hickory and other woods on the tract, which is only about two miles from the railroad.

A company has been organized at Atlanta to be known as the Aripeka Saw Mills for the purpose of carrying on a general timber, naval stores and real estate business. The capital stock of the company is placed at \$500,000, with the privilege of increasing to \$3,000,000. The principal office of the company will be in Fulton county. The incorporators are H. M. Atkinson, John J. McDonough, Martin F. Amorons and P. S. Arkright.

The Camp Manufacturing Co. of Franklin, Va., which has been contemplating the removal of its finishing plant from Franklin to Portsmouth, Va., is now about to put its plans in execution. The company will locate on the water front, and part of the Seaboard's extensive wharf property will be utilized for the erection of its finishing plant. All the company's rough lumber will be shipped to Portsmouth for working up into finished products.

It is stated that a factory for the manufacture of hardwood products is about to be established in Rome, Ga., with a capital of \$25,000. The offer to locate in Rome was made by certain capitalists provided a site was donated by citizens. This site will cost between \$2500 and \$3000, and this money will be promptly raised through the Board of Trade. When this is done, and the matter is finally closed, work will commence at once. The present intention is to commence work on or before November 1.

West Virginia Coal.

Capt. John S. Swann of Charleston, W. Va., who has taken great interest in the development of an Elk River valley, in an interview at Charleston said:

"A large body of coal land has been recently bought by capitalists on Blue creek with the view of building a railroad up that creek, to connect with the Charleston, Clendennin & Sutton Railroad, sixteen miles above Charleston. Roads are also in contemplation on Big and Little Sycamore and Middle creek, a few miles below Clay Courthouse, with the same view. Large operations are now going on between Clendennin and Big Laurel creek, thirty-eight miles from Charleston, and one operator, a lessee, is shipping 700 tons daily, while Mr. M. Bean, former manager of the Queen Shoals coal mines, is now preparing to operate largely on a tract of some 2000 acres lying on Elk river and Big Sycamore creek, about eight miles below Clay Courthouse, and several other parties are actively engaged in developing coal lands above and below Clay Courthouse along the river under contract of lease."

MECHANICAL.

A Powerful Electric Locomotive.

What is claimed to be the most powerful locomotive in the world has just been built by the General Electric Co., Sche-

motors have each a capacity of 225 horsepower, making a total capacity of 1800 horsepower.

The main body of the truck frame consists of a rectangular framework of cast steel built up of four pieces, two side frames and two end frames, made strong

ing shoes between which the journal boxes slide; truck frames are supported at four points on equalizers. Each equalizer rests on a pair of half-elliptic springs, the ends of which are supported on top of the journal boxes through suitable wearing plates. This construction forms a sim-

In order that the locomotive may round curves easily the axles are given considerable lateral movement in the journal boxes, it being practicable to do this with this design of electric locomotive and thus reduce the effective rigid wheel base.

Wheels, axles or motors can be easily removed from the trucks by dropping into a suitably constructed pit by raising the truck frame.

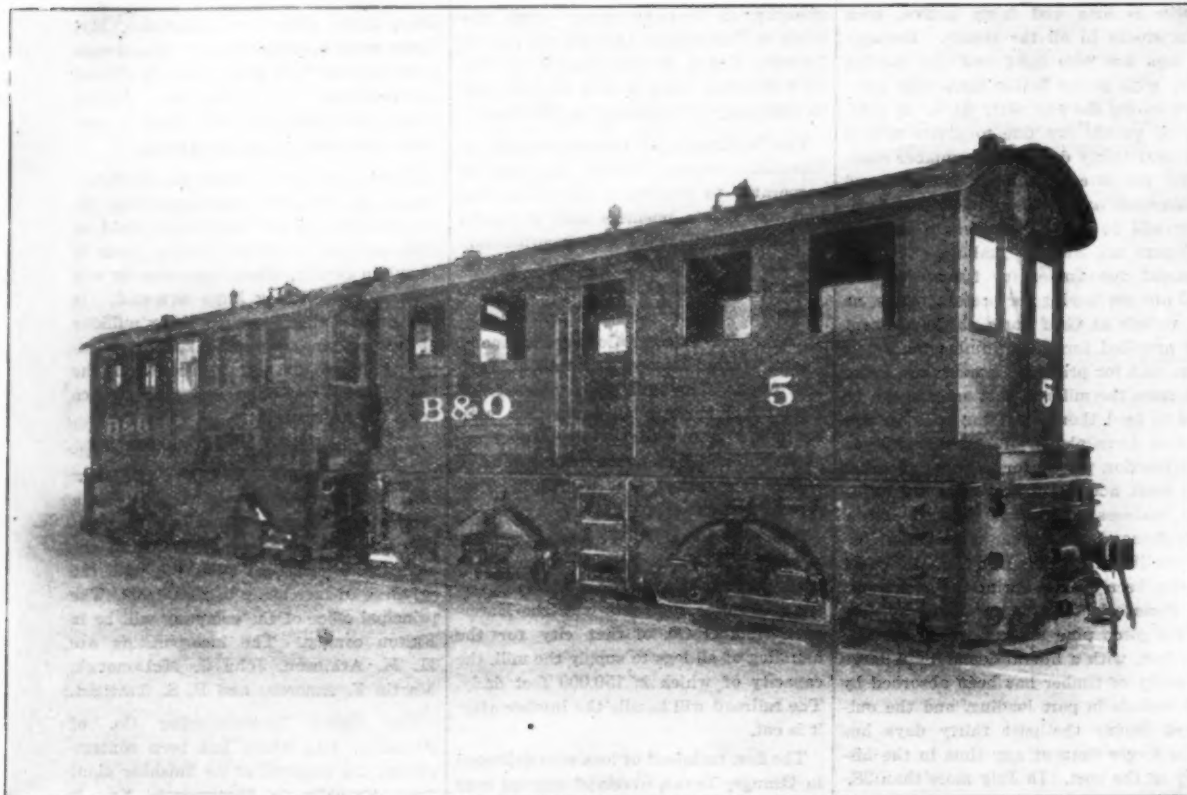
Each section of the locomotive has eight steel-tired spoked wheels. The tires are 27½ inches thick, with M. C. B. standard thread and flange, and are securely held in place by approved fastenings. The axles are made of forged steel turned throughout, 6x12 inches in the truck journal bearings, 8 inches in the wheel fit and 7½ inches in the motor bearings.

The cab is large and roomy. The floor rests on the truck frame. The lining floor is made of 1¾-inch hard pine tongued and grooved, the upper floor is of hard pine ¾ inch thick, tongued and grooved and laid in the opposite direction from the lining floor.

The sides and roof of the cab are made of sheet steel. On each side there is an entrance door, and at each end there is an additional door which permits of ready communication between sections when coupled together. Large windows afford a practically unobstructed view in all directions.

The controlling apparatus consists of master controller, engineer's valves, etc., is in duplicate, a complete set being located in diagonally opposite corners of each cab, so that the engineer when it suits his convenience can stand in the front end of the locomotive when running in either direction.

Each section of the locomotive is equipped with one bell, one whistle, two locomotive headlights, approved air-brake mechanism, including two engineer's valves and air gauges, necessary brake cylinders, foundation brake, air



A POWERFUL ELECTRIC LOCOMOTIVE.

nectady, N. Y., for the Baltimore & Ohio Railroad for use in the tunnel underneath Baltimore. This locomotive will handle all the freight traffic of the Baltimore & Ohio which passes through Baltimore, and will operate over the same section as the General Electric locomotives in successful operation for eight years.

In designing this locomotive the specifications called for an electric locomotive capable of handling a 1500-ton train, including the steam locomotive, but excluding the electric locomotive, on a maximum grade of 1½ per cent., at ten miles per hour, with corresponding higher speed on lighter grades. This required a locomotive weighing approximately 160 tons on the drivers for purposes of adhesion, and the engineers of the General Electric Co. decided that the most practicable scheme was to build an articulated locomotive consisting of two complete 80-ton units operated together as one locomotive by means of the Sprague-General Electric Multiple Unit Control.

The section of the road to be operated runs from Camden Street Station through the tunnel to the summit of the grade outside the tunnel, a distance of three and one-half miles.

Under practical operating conditions the motors have sufficient capacity to maintain this service hourly, running loaded up the grade and returning light.

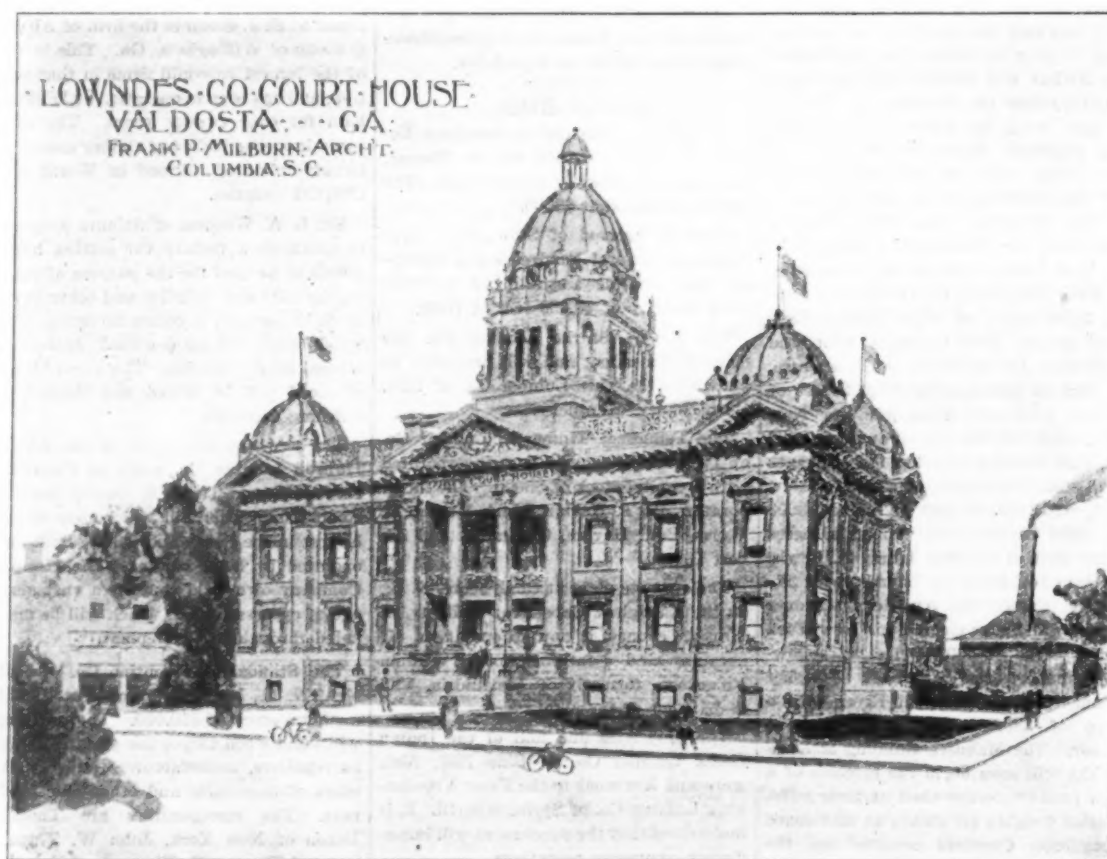
On account of the simplicity and accessibility and minimum number of wearing parts, it is believed that the maintenance account of this locomotive will be very low. All wearing surfaces have been made large for the purpose of insuring long life. At the same time special provision has been made for their easy replacement whenever it becomes necessary. There is a large space under the cab floor in which a man can stand and inspect the motors or truck gear.

The whole locomotive consists of eight GE-65 motors, four on each half. These

and heavy. The parts are machined at the ends and securely fitted and bolted together, thus forming a very strong and rigid structure capable of withstanding

ple and effective arrangement of parts.

The journal boxes are made quite similar to standard-car journal boxes. The parts, however, are made larger and



LOWNDES COUNTY COURTHOUSE—To be Built at Valdosta, Ga. Plans and Specifications by Frank P. Milburn of Columbia, S. C.

the most severe shocks without injury; end pieces form the buffer beams, and to these a suitable standard draft gear of approved design is attached; side frames have machined jaws protected by wear-

stronger. The brasses can be easily removed, and by dropping down the wearing shoes it is possible to remove a journal box complete without removing the wheels and axles or other parts of truck.

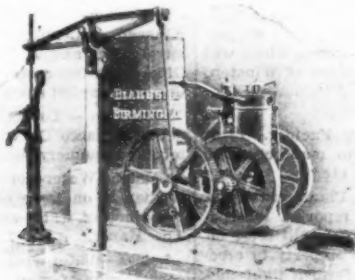
reservoirs, couplers and draw heads; also leach pneumatic track-sanders.

Each section of the locomotive is equipped with four GE-65 motors and Sprague-General Electric Multiple Unit

Control, so arranged as to be able to operate each section independently or two or more sections coupled together.

Blakeslee Pumping Outfit.

A reliable and efficient equipment that can be directly connected to a pump and will supply sufficient water for general farm and household use is the Blakeslee Pumping Outfit, an illustration of which is presented herewith. Those who desire to have their own waterworks plant at a small cost will find the Blakeslee a most



BLAKESLEE PUMPING OUTFIT.

desirable power. In case of fire or other necessity the outfit can be started at a moment's notice, as it is always ready for work, and it is not necessary to wait for the wind. The engine can instantly be made available for other purposes, such as grinding feed, churning, etc., by disconnecting the pump. The outfit is simple, durable, economical, easily operated and ready for performing its functions at any minute. It is built by the Blakeslee Manufacturing Co., builders of the Blakeslee gas and gasoline engines and connected outfits, Birmingham, Ala.

Cottonseed-Oil Notes.

The Pickens Cotton Oil Co. of Pickens, Miss., has amended its charter by increasing its capital stock from \$47,000 to \$56,400.

The Williamsburg Cotton Oil Mill Co., whose plant is located at Kingstree, S. C., has increased its capital stock from \$20,000 to \$30,000.

The Quitman Cotton Oil Co. of Quitman, Ga., has been at work on its plant for several weeks getting it in first-class condition for the coming season.

The exports of cottonseed oil from New Orleans for the week ending the 15th inst. amounted to 1701 tons. Since September 1, 1902, the exports aggregate 220,787 barrels, against 245,955 barrels for the same period last year.

The Cowpens Cotton Oil Mill Co. of Spartanburg, S. C., has begun the erection of its buildings. The company expects to be ready for crushing seed by the middle of November or before. In connection with the mill the company will operate a large gin.

Cottonseed oil in New York closed on the 18th inst. dull and neglected, except for prime yellow for this month, 41 cents being bid and 42½ cents asked, with no disposition to trade. Forward months were entirely neglected; off 37½ cents bid and 38½ cents asked, and crude, like refined, was not wanted nor offered.

The cottonseed-oil mill now being erected by the Lee County Manufacturing Co. at Bishopville, S. C., is making rapid progress, and the company hopes to have it in operation by the 1st of October. The oil mill is 125x80 feet, the seedhouse 177x50 feet, and the ginhouse 54x60 feet. The mill will have a capacity of forty tons a day. Ten gins of the Munger patent have been purchased, six of which will be used for ginning for the public and four linters.

The following quotations for cottonseed

and cottonseed products were current in Memphis, Tenn., on the 15th inst.: Prime cottonseed oil, 34 cents; off crude, 26 to 33 cents; prime summer yellow, 37 cents; choice cooking, 45 cents; cottonseed per ton, by river \$12 and by rail \$13; cottonseed meal, \$20.50 per ton; off meal, \$17 to \$19.50; prime cake, \$20; linters, 2½ to 3 cents per pound. Receipts of cottonseed at Memphis since September 1, 1902, aggregate 4449 cars and 615,750 sacks, against 3332 cars and 591,533 sacks for the same period last year.

Cottonseed products in Texas during the past thirty days have ruled easy, with prices lower and buyers not disposed to purchase except for immediate wants, while millmen are not anxious to make contracts for future delivery. Sales of oil have been reported at 32 cents down to 20 cents for September delivery, with the latter figure also for first half of October. Meal and cake closer last week at \$18.50 per ton for September and first half of October.

At a general meeting of the Memphis Merchants' Exchange, held in that city last week, the recent rules adopted by the Interstate Cottonseed Crushers' Association at its last meeting in Memphis were made a part of the government of the local body, the only difference being that the rules of the Memphis Exchange are somewhat fuller than those subscribed by the superior body. Besides the local cottonseed business men present, representatives from Mississippi, Arkansas, Kentucky and Oklahoma attended the meeting.

The following are official quotations on cottonseed and cottonseed products as posted at the Cotton Exchange in New Orleans on the 15th inst.: Prime refined oil in barrels, 42½ cents per gallon; off refined in barrels, 38½ cents per gallon; prime crude, loose, nominal per gallon; prime cottonseed cake, \$25.50 per ton of 2240 pounds; off prime cottonseed cake, nominal; prime cottonseed meal, \$25.50 per ton of 2240 pounds; off prime cottonseed meal, nominal; soap stock, 80 cents; linters, per pound, choice, 4½ cents; A, 4 cents; B, 3½ cents; C, 3¼ cents; cottonseed in sacks delivered at New Orleans, per ton of 2000 pounds, \$11; in bulk delivered at New Orleans, per ton of 2000 pounds, \$10.

Dr. Heinrich Riess, professor of economic geology in Cornell University, was at Beaumont, Texas, last week, and is at present engaged in examining the fine clays of Texas. The professor pronounces the various clay deposits of Liberty, Hardin, Fayette and Jefferson counties as very rich in quality and quantity. He will make an exhaustive report of the result of his labors to the State geological department and prepare samples of the clay for the World's Fair at St. Louis. Dr. Riess reports that there can be no doubt that if the valuable kaolin deposits in Texas are brought to the attention of the makers of china they will become the basis of a very important industry.

PHOSPHATES.

Phosphate Markets.

Office Manufacturers' Record, Baltimore, Md., August 19.

There has been no special feature presented in the local phosphate market during the past week beyond a quieter tone than usual, as in some other fertilizer ingredients. Receipts of rock continue liberal, and fertilizer men are having their wants amply supplied. Brokers report no sales for the week, the offerings being generally light. The following phosphate charters were reported last week: Norwegian steamer Kong Frøde, 579 tons, from a South Atlantic port to United Kingdom or Continent on private terms; British steamer Magda, 1506 tons, from Fernandina to Ghent at 12/6, prompt; schooner Thomas B. Reed from Cartaret, N. J., to Bowdoinham at \$1.50 net, and British steamer Horsa, 1901 tons, from Coosaw to Mersey at 11/, August. At points of production in the Southern phosphate belt the activity previously noted continues, and miners are generally fully employed. Scarcity of laborers operates against development in some sections, but the output is liberal in nearly every case. Reports from Florida are in the main satisfactory as far as prices are concerned. There is a good demand for rock, but prominent companies find it even difficult to fill present orders, and are not making many future deals at present prices. Shipments from the ports are very good; some 15,000 tons left Port Tampa last week, and about 16,000 tons will leave Fernandina in the next ten days. In Tennessee miners are all busy at Mt. Pleasant and Sumner, and Hickman counties; the development of phosphate lands is quite vigorous, and results are generally satisfactory. The market at Mt. Pleasant is firm for both domestic and export rock, and shipments continue liberal, both to interior points and to European centers. The scarcity of hands recently to work deposits has interfered with the plans of prominent companies, but it is expected that laborers will be more plentiful in the future. The market in South Carolina is on a good footing, with considerable demand for rock from both domestic and foreign sources. The Central Phosphate Co. of Beaufort shipped a large cargo of rock to Dublin, Ireland, last week, and the same company is loading another steamer for a foreign port. Prices for South Carolina rock are very steady.

Fertilizer Ingredients.

The market for ammoniates has ruled quiet and slightly easier for some material, but the general list is about steady. There is a moderate inquiry from the usual sources. Packers in the West hold their stocks firm.

The following table represents the prices current at this date:

Sulph. of ammonia (gas), spot.	\$5 10 @ 3 12½
Nitrate of soda, spot Balto.	2 12½ @ 2 15
Blood.	2 70 @ 2 72½
Azotine (beef).	2 55 @ 2 57½
Azotine (pork).	2 55 @ 2 57½
Tankage (concentrated).	2 45 @ 2 47½
Tankage (9 and 20).	2 57½ @ 10 22 60 & 10
Tankage (7 and 30).	22 00 @ 22 50
Fish (dry).	32 50 @ 35 00

Phosphate and Fertilizer Notes.

The Haynie Bros. Company of Northumberland county, Virginia, has been incorporated, with a capital stock of \$10,000 to \$50,000, to manufacture and sell fish fertilizers. The incorporators are John A. Haynie, T. W. Haynie, William Blundon, E. W. Edwards and George N. Reed.

Phosphate shipments from Port Tampa for the week ending the 14th inst. were numerous and larger than usual. There were seven shipments—three to France, three to Baltimore and one to Carteret,

N. J. The total amount shipped amounted to 14,385 tons, representing a value of \$186,310.

The steamer Zeeburg cleared from Fernandina last week for Europe with 3000 tons of phosphate rock, and the steamer Chemiston with 2400 tons. The steamships Verax, Magna, Dania and Abergeldie, all consigned to John C. McGiffin & Co. of Fernandina, will load this week with phosphate rock, taking a total of 13,000 tons.

It is stated that H. D. Rhum of Mt. Pleasant, Tenn., has recently purchased two tracts of phosphate land in Totty's Bend in Hickman county. The two tracts contain 160 acres, and are said to contain valuable deposits of rock. The places adjoin on both sides the property of the Duck River Phosphate Co., which is now operated by the Virginia-Carolina Chemical Co.

The Rockbridge Lime & Stone Co. of Lexington, Va., has completed its plans for the manufacture of fertilizer lime, and operations were begun last week at its kilns just west of Lexington. The officers of the company are: E. L. Embree of Buena Vista, president; H. H. Adams of Lynchburg, vice-president, and Lawrence Embree of Lexington, secretary-treasurer.

The phosphate exhibit will be one of the leading features of Tennessee's mineral exhibit at the World's Fair in St. Louis. Prof. J. A. Holmes, chief of the department of mines and metallurgy, has furnished to Secretary B. A. Enloe of Tennessee outlines for the exhibit, and is quite interested in having the mineral interest of Tennessee fully represented in his department.

The British steamship Gulf of Anand, after loading the balance of her cargo of phosphate from lighters off Port Royal, S. C., sailed on the 12th inst. for Dublin. She was supplied by the Central Phosphate Co. The Norwegian steamship Horsa from Baltimore arrived at the Central Phosphate Co.'s works at Beaufort, S. C., on the 11th and loaded phosphate for a foreign port.

It was reported last week at Mt. Pleasant, Tenn., that the Federal Chemical Co. of Louisville, Ky., had purchased the Allan Harlan and Hill phosphate properties on the Hampshire pike, northwest of Mt. Pleasant. Since the recent development of the property it has been found to contain large beds of phosphate rock, and is considered among the most valuable properties in the county.

The commission of Mr. T. J. Cunningham, phosphate inspector of South Carolina, expired on the 17th inst., the office having been abolished by an act of the general assembly. The duties of the phosphate inspector will be performed now by the phosphate commission, which consists of the governor, attorney-general and two commissioners appointed by the governor. The commissioners are Messrs. D. H. Tompkins of Greenwood and James H. Manning of Dillon.

It is stated that specimens of kaolin and glass sand have been found on the ranch in Madison county of Mr. P. H. Buer of Dallas, Texas. This kaolin is found in large deposits, one lying only a few feet below the surface four and one-half feet thick, 400 yards long and 100 yards wide. It is stated by the chemist who has analyzed the clays that this kaolin burns out into a perfectly white, light bisquit. A very high grade of china, it is said, can be made from this clay, and the supply of raw material for making coarser ware is practically unlimited. Mr. Buer has expressed the intention of starting the manufacture of chinaware on his place.

CONSTRUCTION DEPARTMENT.

TO OUR READERS!

In order to understand and follow up properly the Construction Department items, please bear in mind the following statements:

EXPLANATORY.

The Manufacturers' Record seeks to verify every item reported in its Construction Department by a full investigation and complete correspondence with everyone interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state are "reports" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

*Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery, Proposals and Supplies Wanted."

In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the Manufacturers' Record.

ADDRESS FULLY.

To insure prompt delivery of communications about items reported in these columns, the name of one or more incorporators of a newly incorporated enterprise should be shown on the letter addressed to that town, or to the town of the individual sought, as may be shown in the item, as sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. This will help to insure prompt delivery of your communication, although it is inevitable that some failures on the part of the postal authorities to deliver mail to new concerns will occur.

WRITE DIRECTLY.

It is suggested to advertisers and readers that in communicating with individuals and firms reported in these columns a letter written specifically about the matter reported is likely to receive quicker and surer attention than a mere circular.

W. H. Montgomery, 31 Eagle street, Brooklyn, N. Y., contemplates removing a piano manufacturing plant to some desirable location where the best inducements shall be offered. Correspondents are invited to give full particulars.

ALABAMA.

Athens—Ice Plant.—Egbert & Coldwell of Alliance, Ohio, will establish a 10-ton ice and cold-storage plant at Athens.

Birmingham—Tank Factory.—Baker, Stillwell & Hart, 421 Chalfoux Building, Birmingham, Ala., have purchased the Dixie Paint Mill; will remodel, enlarge and operate the plant, manufacturing dry mineral paint of various colors.*

Birmingham—Land Improvement.—Rugby Land & Investment Co., 511 Woodward Building, has purchased and will improve the Nelson property. Geo. Kelley, 2021 Third avenue, is engineer in charge.*

Birmingham—Cold-storage Plant.—It is reported that A. A. Gambill and associates will erect a six-story building to be equipped as a cold-storage plant.

Elba—Water-works.—City has voted issuance of \$15,000 of bonds for the construction of water-works. Address The Mayor.

Huntsville—Manufacturing, etc.—Wm. C. Henderson of Savannah, Mo., has purchased the George F. Scruggs farm near Huntsville at \$14,000. He will cultivate corn and cotton, erecting large granaries for storage purposes, establish factory for producing a staple article, etc.

Jasper—Tannery.—Jasper Tannery Co. has been organized, with capital of \$7500, for manufacture of harness leather. Machinery will be installed at once. A. S. Preston is president; John B. Hughes, vice-president, and H. P. Walt, manager.

Jasper—Tannery.—Jasper Tannery Co. has been organized, with capital stock of \$7500; A. S. Preston, president; John B. Hughes, vice-president, and H. P. Walt, manager.

Palos—Coal and Iron Mines.—Lancaster Coal & Iron Co. of Lancaster, Pa., has pur-

chased at \$100,000 the Palos Coal & Iron Co. and its properties, including coal mines with a daily output of 400 tons, coke ovens, undeveloped lands, etc. It is stated that the new owners will make extensive improvements.

Pine Hill—Lumber Company.—Peter Vredenburg Lumber Co. of Springfield, Ill., has purchased properties and mill of Indian Creek Lumber Co. at Pine Hill, and will operate same.

Selma—Electric-light Plant.—Selma Lighting Co. will install some new machinery for improving electric-light plant.

Sylacauga—Cotton Mill.—T. J. Matthews, reported last month as to build \$25,000 yarn mill, will invest about \$35,000. He is now installing the plant, to be 2000 spindles, which will make yarns to supply his Marble City Hosiery Mills.

Talladega—Furniture Factory.—Watts Manufacturing Co. has been organized, with capital of \$10,000, for manufacture of furniture, sash, doors, blinds, etc. Address company care of J. E. Stone, secretary Industrial Association.

Tuscaloosa County—Mineral Lands.—Samuel M. Pickler of Kirskeville, Mo., has purchased 50,000 acres of mineral lands in Tuscaloosa county and other counties in Alabama, but has not as yet determined when developments will begin.

ARKANSAS.

Altheimer—Cotton Gin.—Merchants & Farmers' Gin Co., lately reported incorporated for erection of cotton gin, will install four 70-saw gin. All contracts have been awarded.

Arkansas City—Flour Mill.—Arkansas City Mills has awarded contract for rebuilding and re-equipping its plant burned in June at a loss of \$150,000. Capacity will be 2000 barrels of flour daily.

Bentville—Hardware.—Incorporated: Powell Hardware Co., capital stock \$10,000, by P. S., W. W. and F. D. Powell and E. C. Knott.

Dewitt—Grist Mill and Gin.—Incorporated: Dewitt Gin & Mill Co., for ginning cotton, operating corn and feed mill, manufacturing hardwood lumber, etc. The capital stock is \$10,000; F. M. Lamb, J. H. Merrett & Co., T. J. Davis, E. J. Brassell, J. C. Barnett, Baker & Dudley, E. B. Gibson and others, incorporators.

Harrison—Zinc Mines.—White River Zinc Mines Co. has been incorporated, with capital of \$50,000, by George L. Mallory of Little Rock, Ark. (president), and others.

Harrisburg—Electric-light Plant.—City has granted to G. F. Garvey a charter for establishing electric-light plant.

Helena—Levee Work.—Government has awarded contracts to G. L. Cary of Memphis, Tenn., at \$30,750 and Z. T. Anderson at \$7940 for levee improvements between Helena and Laconia, Ark., in White river district of Mississippi river improvement work.

Slattington—Slate Mines.—Slattington Slate Co. will install additional machinery at its mines.

FLORIDA.

Jacksonville—Mercantile.—The Covington Company, an established mercantile enterprise, will incorporate, with capital stock of \$200,000, and extend its operations. R. V. Covington is president.

Jacksonville—Docks.—E. O. Painter Fertilizer Co., reported lately to erect new \$100,000 plant and to make other extensive improvements, has awarded contract for construction of extensive docks along river front at cost of \$12,000.

Miami—Cannery.—East Coast Packing Co. has applied for charter to have capital of \$100,000 for purpose of establishing cannery. Wm. M. Brown, W. R. Anno and others are interested.

Pensacola—Steel Bridge.—The County Commissioners will build a steel bridge 700 feet long and twelve feet wide to replace present wooden structure.

GEORGIA.

Ashburn—Timber Developments.—J. S. Betts & Co. have purchased additional tracts of pine timber land for development. They have an extensive lumber plant.

Atlanta—Woodworking Plant.—L. A. Weedon will establish plant for cutting hardwood blocks to be shipped to bobbin and spindle factories for finishing.

Atlanta—Lumber Plant.—H. M. Atkinson, John J. McDonough, Martin F. Amoroso and T. S. Arkwright have incorporated Aripaka Saw-Mills, with capital stock of \$500,000.

Atlanta—Realty.—George E. King, W. E. Newill and W. H. Martin have incorporated King Realty Co.; capital placed at \$15,000, with privilege to increase to \$500,000.

Attapulgus—Tobacco Cultivation.—Wm. B. Schrader and associates contemplate organizing company to cultivate Sumatra and Cuba tobacco in Decatur county, Georgia, and Gadsden county, Florida.

Columbus—Water-works.—The city is making active preparations to construct its proposed new system of water-works, which will cost about \$300,000. J. L. Ludlow of Winston, N. C., and R. L. Johnson of Columbus, Ga., are engineers in charge.

Clarksville—Woodworking Factory.—T. J. Bentley will erect plant for manufacture of wago hubs, spokes, felloes, etc.*

Columbus—Electric-light Plant, etc.—Rankin Realty Co., recently reported incorporated with capital of \$150,000, will later on make improvements to its property in erection of electric plant to furnish light and power, etc.

Dahlonega—Mineral-land Development.—J. B. Clements, T. F. Jackson and J. F. Moore of Dahlonega, Ga.; Wilbur F. Stone of Denver, Col.; J. McKnight Wright of Huntingdon, Tenn., and others have incorporated the Jumbo Gold Mining Co., with capital stock of \$2,000,000, for development of gold, silver, copper, iron and other mineral lands.

Dublin—Telephone System.—A. Block, N. M. Block, Malcolm Jones, Louis Block and Samuel Block have petitioned for a charter for the Dublin Telephone & Manufacturing Co., with a capital stock of \$100,000, for establishing telephone system, etc.

Gainesville—Sewerage System.—City has declined all bids received for construction of its proposed fifteen miles of sewerage, and work will be done under supervision of City Engineer.

Hogansville—Mercantile.—J. F. Askew, R. M. Motley, Edwin Trippe, S. N. Reid and others have incorporated the Hogansville Dry Goods & Grocery Co., with capital stock of \$20,000.

La Grange—Woodworking Plant.—Mutual Manufacturing Co. has been organized recently, with Cleo H. Revis, president, and J. L. Rice, secretary. Buildings have been erected and equipped with machinery for manufacturing coffins, lumber, etc.

Lafayette—Cotton Mill.—Lafayette Cotton Mills, reported organized in June with \$100,000 capital, has let contract to R. L. Westcott of Chattanooga, Tenn., at about \$35,000 for brick work on building required. Equipment will be 4000 spindles and 128 looms; probably 1000 spindles and thirty-two looms additional to be added after first installation is operating; J. E. Patton, president.

La Grange—Woodworking Factory.—R. E. Hawkins will install machinery for manufacture of picker sticks for use in cotton mills, and will later on put in machinery for manufacture of axe-handles.

Macon—Cotton Mill.—Willingham Cotton Mill will erect additional building and install new machinery, including looms, for which contract has been awarded. Erection of new building has begun. Company now has 11,200 spindles and 200 looms.

Macon—Harness Factory.—Chartered: Hunt Manufacturing Co., with capital stock of \$25,000, and privilege of increasing to \$50,000, for the purpose of manufacturing harness, etc. J. W. Shinholser, J. M. Edge, J. M. Hunt and C. E. Anderson are the incorporators.

Pelham—Cotton Mill.—Pelham Manufacturing Co. contemplates installing seventy-two additional looms.

Pembroke—Lumber Mill.—Bixby Lumber Co. will operate the plant mentioned last week, and has ordered additional machinery.

Thomson—Cotton Mill.—J. E. Smith Manufacturing Co. contemplates enlarging its cotton mill.

KENTUCKY.

Burkesville—Oil and Development Company.—Marrowbone Oil & Development Co. has been incorporated for development of oil wells.

Flat Rock—Coal Mines.—Nixon Coal Co., W. J. Nixon, manager, Chattanooga, Tenn., has begun the development of its coal properties at Flat Rock, and will produce about 200 tons of domestic coal daily. A complete plant has been equipped.

Frankfort—Fishing-reel Factory.—R. L. Hunter of Cleveland, Ohio, is conferring with Clarence Gayle of Frankfort relative

to establishing plant for manufacturing a patent fishing reel.

Lancaster—Water-works.—E. H. Beeman & Co. of New Albany, Ind., is the correct title of firm reported last week as securing contract for the construction of Lancaster's water-works. About \$30,000 will be the cost of the system. Frank Schefold is the engineer in charge.

Lexington—Gas and Oil Wells.—Eliza P. Kinkaid of Lexington, S. F. Rock of Richmond, Ky., and J. W. Rock of Cleveland, Ohio, have incorporated Dudley Oil & Gas Co., with capital stock of \$500,000.

Lexington—Tobacco Stemmy.—Continental Tobacco Co. contemplates building a tobacco stemmy; main offices in New York.

London—Water-works.—City will vote September 30 on issue of \$15,000 of bonds for constructing water-works system. Address The Mayor.

Louisville—Water-works.—City is interested in construction of system of water-works. Address M. F. Conley.

Louisville—Paint Factory.—Charles R. Long, Jr., Co. has been incorporated, with capital of \$30,000, for manufacture of paint, etc., by Charles R. Long, Jr., C. W. Bridges, J. S. Strassel and John E. Tinsley.

Louisville—Realty Company.—Vogt-Georgel Realty Co. has been incorporated, with capital of \$50,000, by F. William Vogt, Constant Georgel and J. Frank Vogt.

Louisville—Mining.—Mineral Mining & Land Co. has increased capital from \$12,000 to \$24,000.

Louisville—Portland Cement Works.—The Commercial Club is promoting efforts for the establishment of Portland cement works. It is said an experienced company has made a proposition to invest \$500,000 in such a plant.

Louisville—Candy Company.—Incorporated: Stutz Candy Co., capital \$25,000, by P. E. Stutz, F. M. and J. W. McGlaughery.

Louisville—Terminal Company.—Incorporated: The Terminal & Warehouse Co., capital \$50,000, by H. W. Newman, H. A. Hickman, E. F. Trabue, Logan C. Murray, W. A. McLean, John Cochran and Attila Cox, Jr.

Louisville—Machine Company.—Chartered: Kentucky Gear & Machine Co.; capital stock \$20,000; Gottlieb Bender, A. A. and G. E. Butterwick and J. A. Stege, incorporators.

Louisville—Lumber.—Incorporated: Stutz, Perkins & Pettibone, wholesale lumber dealers; capital \$50,000; C. H. Stutz, B. L. Perkins and F. W. Pettibone, incorporators.

Marion—Zinc Mines.—Ohio Valley Mining Co. will increase capital stock from \$100,000 to \$500,000 in order to extend its operations and develop zinc mines.

Middlesboro—Coal Mines.—A. D. Campbell, V. B. Campbell and Will Williams have incorporated the Ferndale Coal Co., with capital stock of \$40,000, and will develop coal mines.

Nicholasville—Water-works.—City contemplates calling an election to vote on issuing bonds for the construction of water-works. About \$30,000 will be required. Address The Mayor.

Owensboro—Woolen Mill.—J. Hugh Ditto, H. K. Ditto and Mrs. Clara L. Ditto have incorporated Owensboro Woolen Manufacturing Co., with capital stock of \$20,000, to operate woolen mill.

Stone—Saw-mill.—J. B. Stone is increasing capacity of his saw-mill.

Stone—Saw-mill.—Craw & Sherrod have purchased several hundred acres of timber land, and are installing saw-mill with capacity of 40,000 feet capacity at Holly.

Winchester—Carriage Factory.—Bean Bros. have about decided to establish their carriage factory reported last week as contemplated. J. W. Crone will be architect in charge. Buildings are to be two and one-half stories high, 50x112 feet, with an ell 49½x50 feet.*

LOUISIANA.

Alexandria—Timber Lands.—J. F. Ball & Bros. have purchased 15,000 acres of pine timber land for \$45,000.

Monroe—Saw-mills.—C. D. Johnson, president of Little Rock & Monroe Railroad, St. Louis, Mo., and associates have begun the erection of a saw-mill, and will build additional plants.

New Iberia—Planting, etc.—A charter has been issued incorporating the Avery Planting & Improvement Co., with a capital stock of \$100,000, to purchase and to develop agri-

cultural, mining and manufacturing resources.

New Orleans—Photo-button Factory.—New Orleans Photo-Button Co., Ltd., has been incorporated, with capital stock of \$6000, for manufacturing photo-buttons, etc. N. O. Bourque is president; F. E. Tassin, vice-president, and Otis C. Snell, general manager.

Opelousas—Sewerage System.—City is having plans prepared for construction of sewerage system. Address The Mayor.

Washington—Water-works.—The town has decided to build water-works, and plans have been obtained. Ira W. Sylvester of Alexandria, La., is consulting engineer. Bids for construction will be opened next month. August J. Muller is mayor.*

MARYLAND.

Baltimore—Machine Shops and Boiler Works.—E. J. Codd, who recently purchased the Baltimore Marine Railway, Machine and Boiler Works, will reorganize and operate as the Marine Railway, Machine and Boiler Works.

Baltimore—Land Improvement.—Sherwood Land Improvement Co., for dealing in real estate, has been incorporated, with authorized capital of \$20,000, by Roger T. Gill, N. Rufus Gill and Albert S. Gill.

Baltimore—Railroad Shops.—Baltimore & Ohio Railroad Co. will open bids today for the construction of the additional shops for its Mt. Clare plant. Plans call for erecting shops 73x300 feet and machine shop 58x300 feet; both to cost about \$90,000.

Cumberland—Timber Developments.—John O. Thayer of Thayersville, Md., has purchased a tract of 1000 acres of timber.

Frederick—Barytes Mines.—It is reported that Geo. A. Vickers of New York has discovered barytes deposits in Frederick county, and will develop same. It is proposed to make Baltimore the distributing point, with possibly pulverizing mills and a warehouse. Among others reported to be interested are John Williams of John Williams & Co., Wall street, New York; George Broadhurst of New York, Willis Abbott of Philadelphia and James Hurswell of New York.

Hagerstown—Automobile Factory.—Pope Manufacturing Co., Hartford, Conn., states there is no truth in reports as to additions contemplated for the Crawford Bicycle Works at Hagerstown. The reports were mentioned last week.

Hagerstown—Automobile Works.—R. S. Crawford of New York city proposes organizing company to establish automobile works at Hagerstown.

MISSISSIPPI.

Aberdeen—Pearl-button Factory.—John R. Young, reported last week as to organize company for the erection of a pearl-button factory, proposes an investment of about \$25,000, the plant to manufacture 5000 gross of buttons per week.*

Chattanooga—Hotel Company.—Chattanooga Hotel Co. has been organized, with capital of \$20,000, and C. H. Stevens, president; J. L. Purser, vice-president, and C. J. Bartlett, secretary-treasurer.

Corinth—Grocery.—Abe Rubel, Russel Dance and H. F. Busch have incorporated Corinth Grocery Co., with capital of \$50,000.

Corinth—Water and Sewer Systems.—City has voted \$60,000 in bonds for water-works and sewerage. Address The Mayor.

Glendale—Steam Ferry.—Glendale & Helena Steam Ferry Co. has been incorporated, with capital of \$5000.

Mayfield—Cotton Gin.—Mayfield Gin Co. has been incorporated, with an authorized capital of \$10,000.

Senatobia—Electric-light Plant.—The city is preparing to construct its electric-light plant, for which \$6500 in bonds was voted last month, as previously stated. It is proposed to supervise the work. Harper Johnson, mayor, can be addressed.*

Taylorsville—Gin, etc.—Taylorsville Gin & Warehouse Co. has been incorporated, with capital stock of \$5000.

MISSOURI.

Carthage—Land Company.—La Russell Land Co. has been incorporated, with capital of \$16,000, by H. M. Keim, S. H. Regan and J. F. Harrison.

Fulton—Sewerage System.—City will vote September 15 on issue of \$23,000 of bonds for construction of the sewerage system lately mentioned. R. H. Fowler is mayor.

Hermann—Shoe Factory.—Herman Shoe Manufacturing Co. has been incorporated, as lately reported, and is erecting factory at cost of \$13,500 for manufacture of shoes, with capacity of 600 pairs per day. Building will be one story, 40x120 feet. H. TeKofle is

architect and Wm. Kecuk, contractor. Machinery has been purchased.

Houston—Oil and Pipe-line Company.—Greater Houston Petroleum & Pipe Line Co. has been incorporated, with capital of \$100,000, to prospect for oil, minerals, etc., by E. C. Robertson and N. C. Abbott of Houston, Texas; E. M. Hess of Boonville, Mo., and others.

Independence—Brick Works.—Independence Shale Brick Co. has been incorporated, with capital of \$16,000, by J. O. Edson, C. M. Sturgis, J. F. Groebe, W. E. Peck and E. A. Schoeler.

Kansas City—Tunnel.—Metropolitan Street Railway Co. has let contract at about \$200,000 for improving and extending the Eighth-street tunnel. The grade in tunnel will be lowered from 8.3 per cent. to 5.3 per cent.

Kansas City—Airship Company.—Shultz Airship Manufacturing Co. has been incorporated, with capital of \$100,000, by George R. Shultz, Frank D. Pelletier, Rice R. Miner and others, for manufacture of airships.

St. Louis—Mining and Manufacturing.—Peter Heibel & Sons Milling & Manufacturing Co. has been incorporated, with capital of \$20,000, by Peter Heibel, Adolph Walter, Henry and Frank Heibel.

St. Louis—Safe Company.—Chartered: Price Safe Co., with capital of \$100,000, by M. L. Price, George H. Price, D. H. McDonnell and others.

St. Louis—Grain Company.—Delmar Grain Co. has been incorporated, with capital of \$10,000, by T. J. Bradshaw and others.

St. Louis—Construction Company.—Incorporated: George T. Hill Construction Co., capital \$2000, by R. A. Millot, George T. Hill, L. A. Wood and L. A. Hill.

St. Louis—Mercantile.—Gill Bros. Grocery Co., with capital of \$25,000, by Henry Gill and others.

NORTH CAROLINA.

Augusta—Knitting Mill.—J. D. Hodges and associates will establish mill for knitting children's ribbed hosiery. Building has been erected, but machinery not purchased. About \$12,000 will be invested.*

China Grove—Mercantile.—Incorporated: Foreman-Lentz Company, with capital stock of \$50,000, by H. C. Lentz, W. G. Patterson of China Grove, B. A. Foreman of Silver, N. C., and W. R. Foreman of Charlotte, N. C.

Dillsboro—Lumber Manufacturing.—Dillsboro Milling & Manufacturing Co. has been incorporated by H. S. Haskins of Asheville, N. C.; R. Frank Jarrette of Dillsboro and Walter E. Moore of Webster, N. C., with capital stock of \$25,000, for manufacturing lumber.

Elise (postoffice at Hemp)—Wood-distilling Plant.—Marie Wood Distilling Co., reported last week as incorporated, etc., has engaged Harry S. Jones as engineer in charge, and will establish plant for manufacturing rosin, spirits of turpentine, tar, etc. The initial investment will be \$5000. Outfit has been ordered.

Goldsboro—Land Company.—Park Heights Land Co. has been organized, with E. W. Pou, president; W. T. Dortch, vice-president and general manager, and C. H. Martin of Louisburg, N. C., secretary. The capital stock is \$30,000.

Greensboro—Ice Factory.—Jacob Weller and associates of Cincinnati, Ohio, will, it is reported, establish ice factory at Greensboro.

Hickory—Mercantile.—Piedmont Grocery Co. has been incorporated by S. B. Jones at Hickory, J. C. Bishop and C. H. Bishop of Greensboro, N. C., with authorized capital of \$50,000.

Kinston—Tobacco Factory.—Company is being organized with capital of \$25,000 for erection of tobacco factory. Address M. S. Hamlin, who is reported to be interested.

Kinston—Tobacco Factory.—Cox & Co. and others propose organizing company to build a tobacco factory.

Marshall—Cotton Mill.—John J. Dalton, civil engineer, of Asheville, N. C., is investigating a water-power for capitalists who propose building a cotton mill at Marshall.

Morganton—Lumber Mills.—Chartered: Piedmont Springs Lumber Co., capital stock \$100,000, by William W. Birdsall and C. C. Coolbaugh of Philadelphia, Pa., and W. C. Huett of Morganton. The company is to manufacture lumber.

New Berne—Distillery.—John Field contemplates establishing a whiskey distillery.

Raleigh—Turpentine Plants.—Standard Turpentine Co. has been incorporated, with an authorized capital of \$100,000, to act as builder of wood turpentine plants and to manufacture and refine cresote, tar, turpentine and other pine products. This company is the merger of the experimental plant established at McBee, S. C., called the Ameri-

can Pine Product Co. and a New York company. Thomas Dixon, Jr., of New York is president; Dr. D. W. Kilgore of Raleigh, N. C., vice-president; Leo D. Huartt, secretary and treasurer, and W. H. Krug of New York, directing chemist of laboratory; New York offices at 96 Fifth avenue.

Rocky Mount—Tobacco Factory.—J. O. W. Gravely, J. A. Davis and others propose organizing company to establish a tobacco factory.

Spray—Cotton Mills.—Morehead Cotton Mills will install 4000 additional spindles; now has 4000 spindles.

Statesville—Furniture Factory.—Jacob Christ has leased building and will install machinery for manufacturing furniture.

SOUTH CAROLINA.

Bishopville—Electric-light Plant.—Lee County Manufacturing Co., previously reported as to build a 40-ton cottonseed-oil mill, and now constructing same, will also install electric plant for lighting the town. About \$10,000 will be the cost of electric plant.

Charleston—Cotton Compress.—Charleston Compress & Wharf Co. has been organized, with capital stock of \$30,000, by R. G. Rhett, J. F. Maybank and W. E. Huger. Company has leased Union compress and wharves. W. E. Huger will be manager.

Cheraw—Mercantile.—Incorporated: W. T. Powell Dry Goods Co., capital stock \$8000, by W. T. Powell, R. L. McLeod and J. B. Candler.

Clifton—Bridge.—County Commissioners have awarded contract for building steel bridge over Pacolet river. The structure will have single span crossing 217 feet long, and approaches of stone and cement. G. E. King Bridge Co., Des Moines, Iowa, is the contractor.

Columbia—Building-block Works.—R. F. Bowles will establish plant for manufacturing patent hollow concrete building blocks.

Gaffney—Tin Mine.—Capt. S. S. Ross has discovered tin ore on his property in Cherokee county, and is arranging for installing equipment for mining same.

Georgetown—Building-block Works.—Captain Springs will establish plant for manufacturing patent hollow concrete building blocks.

Hammond—Mercantile.—Thomas W. Livingston, F. Q. O'Neal and A. J. Todd have incorporated Hammond Mercantile Co., with a capital of \$10,000.

Kingsree—Cotton-oil Mill.—Williamsburg Cotton Oil Co., reported several months ago as incorporated with capital of \$20,000, has increased capital to \$30,000.

Pendleton.—Pendleton Cotton Mills, recently reported incorporated, will erect building and install 3120 spindles. Stuart W. Cramer Charlotte, N. C., architect in charge.

Seneca—Cotton Mill.—J. W. Shilbing and associates contemplate organizing company to build cotton mill.

Timmons—Cotton-oil Mill.—J. J. Lawton has engaged H. E. Bonitz of Wilmington, N. C., to prepare plans and specifications for his proposed cottonseed-oil mill.

Union—Live-stock Company.—People's Mutual Supply & Live-Stock Co. has been incorporated, with capital of \$25,000, by S. R. Crawford, D. F. Gilliam and Robert Gilliam, to succeed Crawford & Boyd. New company will erect building.

TENNESSEE.

Bon Air—Spoke Factory.—Wm. Tyler has purchased timber lands, and will build spoke factory.

Chattanooga—Bottle and Glass Plant.—Chattanooga Bottle & Glass Manufacturing Co. will double its output. Plans are being prepared for erection of extensions to buildings, several new furnaces will be installed, additional machinery will be installed, and general improvements will be made.

Chattanooga—Telephone System.—Hamilton County Telephone Co. has been incorporated and will organize to secure a franchise and construct telephone system. Nominal capital is \$10,000, with privilege of increasing. The incorporators are Z. C. Patten, H. S. Probasco, L. J. Sharp, F. M. Gardenhire and Thomas W. Fritts.

Chattanooga—Glass-bottle Works.—Chattanooga Bottle & Glass Manufacturing Co. will double the capacity of its plant.

Columbia—Stave and Lumber Mill.—United States Stave & Lumber Co., reported recently as incorporated with capital of \$10,000, has plant complete and in operation with capacity of 25,000 slack barrel staves per day; may add mill later on for manufacture of lumber and heading.

Ducktown—Blast Furnace, etc.—Tennessee Copper Co. will build an additional blast furnace and make other extensive and important enlargements to its copper plant; en-

largements to the steel-smelting department have just been completed. It is reported that all contracts have been awarded for the latest betterments.

Dyersburg—Real Estate.—West Tennessee Real Estate Co. has been incorporated, with capital of \$24,000, by J. L. Burkess, H. H. Colton, N. W. Calcutt and others.

Dyersburg—Real Estate.—Incorporated: West Tennessee Real Estate Co., with a capital stock of \$24,000, by J. L. Burgice, H. H. Cotton, W. W. Calcutt, Jas. R. Delrechio and W. A. Fowlke, Jr.

Johnson City—Reservoir.—Luke Low Paving Co. of Bristol, Va.-Tenn., has contract to build reservoir for Johnson City Water-Works Co. at Johnson City. Reservoir will be 150x150 feet, and 10 feet deep.

Knoxville—Knitting Mill.—Chamber of Commerce is negotiating with parties who propose establishing a \$25,000 knitting mill.

May Springs—Flour Mill.—James Jeans will build a three-stand roller flour mill.

Memphis—Steam Laundry.—Rozier & Hein will at once arrange to rebuild the Memphis Steam Laundry, burned at a loss of \$30,000.

Memphis—Cotton-gin Works.—Rodgers Cotton Cleaner & Gin Co. has been incorporated, with capital of \$20,000, by J. T. Rodgers, W. R. Rodgers, George B. Rodgers, J. H. Cary and S. V. Caulk, for manufacture of the Rodgers cotton cleaner, hay press, combined round and square cotton press, etc.

Memphis—Beverage Factory.—I. C. Lebolt of Birmingham, Ala., will establish a beverage factory in Memphis at 208 Front street. Daily output will be 9000 pint bottles.

Memphis—Garment Factory.—Incorporated: Fashion Garment Co., by Edward Kaplan, John Burnstein, Albert Harwitz, F. M. Stein and Israel H. Peres, for manufacturing ladies' furnishing goods; capital stock \$25,000.

Nashville—Glass Company.—Nashville Glass & Sundry Co. has filed amendment, increasing capital stock from \$25,000 to \$50,000.

Nashville—Mercantile.—Incorporated: Kelly Mercantile Co., by E. M. Kelly, E. M. Shepherd, C. S. Brown, F. A. Kelly and O. G. Fox. This is capitalized at \$15,000.

Nashville—Furniture Factory.—Edgefield & Nashville Manufacturing Co. announces its capital stock will be increased from \$100,000 to \$150,000.

Nashville—Lumber Plant.—A. Hubbard Lumber Co. of Paterson, N. J., has purchased 5000 acres of hardwood timber lands from H. W. Forde & Co. of Nashville, and will build an extensive lumber plant for developing the property.

Nashville—Gold Mine.—John Kimbro is organizing stock company for development of gold mine in Davidson county.

Nashville—Spoke and Handle Factory.—Nashville Spoke & Handle Manufacturing Co., reported lately as incorporated with capital of \$10,000, has purchased plant of Nashville Spoke & Handle Co.

Nashville—Drug Manufacturing.—Spurlock-Neal Company has purchased building for \$25,000 and will expend about \$35,000 to remodel and improve it to be used as a wholesale drug house with laboratory on third floor for manufacturing drugs, etc.

Nashville—Soda-water Factories.—Incorporated: J. C. Mayfield Manufacturing Co., capital stock being \$100,000, to have laboratory in St. Louis and manufacture soda water at Nashville, Birmingham and other Southern cities.

Nashville—Printing Plant.—National Baptist Publishing Board, R. H. Boyd, secretary, has completed a portion of foundation for building 50x150 feet, four stories, to be constructed for manufacturing purposes. Only foundation contract has been awarded. Edward Laurent is the architect.

Nashville—Cotton Gin, etc.—Incorporated: Rodgers Cotton Cleaner & Gin Co., by J. T. Rodgers, George B. Rodgers, W. R. Rodgers, J. H. Cary and S. V. Caulk. The capital stock is \$20,000.

Newport—Corn Mill.—Newport Mill Co. has begun erection of building to be equipped with machinery for corn mill of 1200 bushels capacity daily; also contemplates installing electric-light plant.

Paris—Toilet Preparations.—National Toilet Co. has increased capital to \$100,000, and will begin the manufacture on a large scale of toilet preparations.

Trenton—Lumber Plants.—Chartered: Tennessee Timber & Lumber Co., by T. Harlan, Mac Morris, D. Weiss, Paul Harlan, A. W. Biggs and L. Rankin, to deal in timber lands, manufacture staves, headings and lumber, etc.

TEXAS.

Aiken Grove—Grist Mill and Gin.—Incorporated: Aiken Grove Gin & Mill Co., capi-

tal stock \$3000, by W. M. Hutchison, G. W. Bartley and T. H. Fowler, all of Clarksville, Texas.

Austin—Publishing.—Incorporated: Firm Foundation Publishing Co., capital stock \$5000, by G. J. and E. L. Steek and Charles Gillespie.

Beaumont—Oil Wells.—Chartered: Paraffine Oil Co., capital stock \$10,000, to prospect for oil and other minerals; incorporators, William Weiss, T. H. Bass, R. A. Greer, G. W. Kidd, W. L. Douglass, J. A. Harrison, all of Beaumont, and J. W. Davis of Concord, Texas.

Beaumont—Oil Company.—Chartered: Margylene Oil Co., with capital of \$10,000, by J. M. East, D. McCall, T. H. Bass, P. M. Weiss and E. C. Wilson.

Brenham—Soap Factory.—Adolph Kessling will enlarge his soap factory.

Brownsville—Canal.—Chartered: Arroyo Canal Co., with capital of \$250,000, for conducting general system of irrigation, by T. J. Hooks, A. F. Hester of Brownsville, W. H. Turner of Beaumont, Texas, and others.

Clisco—Coal Mines.—Chartered: Lone Star Coal Co., capital stock \$100,000, for coal mining; incorporators, D. B. Slater, J. V. Smith of Clisco, Will L. Vining of Austin, Texas; John C. Penn of Houston, and F. A. Taylor of Galveston, Texas.

Corpus Christi—Oyster Cannery.—Henry Douglas of Biloxi, Miss., proposes to establish an oyster cannery at Corpus Christi, investing about \$5500.

Coriscana—Oil Refinery.—Richardson-Gay Oil Co., lately reported increasing capital from \$30,000 to \$50,000, has leased and will operate the San Jacinto Oil Refining Tank Car Co.'s cotton-oil refinery.

Coriscana—Cotton Company.—International Cotton Co. has been incorporated, with capital of \$25,000, for buying and selling cotton, by B. Zadek, W. W. Walton and W. T. Shell.

Dallas—Live-stock.—Thomas L. Bradford, Royal A. Ferris and L. H. Hopkins have incorporated Longs Lake Live-Stock Co., with capital stock of \$40,000.

Del Rio—Shovel Company.—Ellison Shovel Co. has been incorporated, with capital of \$5000, by John W. Ellison, J. T. Murphy and Walter Gills, for manufacture of a patent shovel.

Eagle Pass—Brick Works.—Incorporated: D. & D. Brick Co., capital stock \$10,000, to manufacture brick, by Louis Le Tulle, W. J. Niggli, Louis F. Dolch and S. B. Simpson.

Fort Worth—Cotton-oil Mill.—Fort Worth Cotton Oil Co. has increased its capital from \$75,000 to \$100,000.

Franklin—Cannery.—Franklin Canning Co. will double capacity of its cannery.

Galveston—Telephone System.—Incorporated: People's Home Telephone Co., capital stock \$250,000, to establish and maintain a telephone system in several North Texas counties; incorporators, F. B. McElroy and S. L. Samuels of Fort Worth, Texas, and W. H. Jones of Chicago, Ill.

Gatesville—Grain Company.—Gatesville Grain Co. has been incorporated, with capital of \$3000, by J. R. Raby, H. Sasse of Gatesville, J. C. McMeans of Houston, Texas, and others.

Grandview—Flour Mill.—J. E. Autry contemplates building a flour mill.

Houston—Water-works.—The city has decided to ask proposals for a 21-year franchise for a water-works plant. This step is taken because of dissatisfaction with present supply, and the citizens failed to vote affirmatively on the proposed bond issue of \$500,000 for a municipal plant, which was lately mentioned. D. D. Bryan, city secretary, can furnish particulars.*

Houston—Agricultural.—Chartered: Texas Fruit & Agricultural Co., capital stock \$100,000, for agricultural purposes; incorporators, J. F. Robinson, George B. Griggs, W. I. Williamson, J. H. Tennant, A. E. Griggs, H. C. Glenn and Alfred H. H. Tolar.

Houston—Lumber Mills.—Chartered: Conrad Bering Lumber Co., capital stock \$50,000, for lumber manufacturing business; incorporators, Conrad, Frank C., August C., Theodore C. and Henry J. Bering.

Houston—Lumber Mills.—Chartered: Rice-Allen-Waples Company, capital stock \$30,000, for general lumber manufacturing; incorporators, H. B. Rice, Percy Allen and C. I. Waples.

Justin—Flour Mills.—W. Dawson and associates contemplate building a 300-barrel flour mill.

Marble Falls—Cotton Mill, etc.—As reported last week, S. F. Harrill of West, Texas, and associates will establish cotton mill at Marble Falls. They have purchased building 100x200 feet, two stories high, water-works, electric-light franchise, water-power

property, and will form corporation. A 10,000-spindle plant is proposed. M. H. Reed of Marble Falls is interested. All that is necessary to get 1200 horse-power is to build powerhouse and install wheels.

Montgomery County—Oil Wells.—Charley Moore of Yoakum, Texas, and associates are organizing \$115,000 company for developing oil wells in Montgomery county.

Nebo—Flour Mill.—M. H. Riza will build a 50-barrel flour mill.

Pittsburg—Woolen Mill.—Thomas Davenport is reported as arranging to establish a woolen mill.

Port Lavaca—Electric-light, Ice and Water Plant.—L. Seabrooke is reported to have concluded arrangements with Wilson, Reed & MacDonald of Chicago, Ill., for constructing electric-light plant, water-works and a 10-ton ice plant at Port Lavaca.

San Antonio—Mining.—La Misericordia Mining Co., with capital of \$100,000, by Harry P. Durham, Daniel Ludlow and Columbus A. Keller, all of Bexar county, Texas.

San Antonio—Laundry.—Brogdon Laundry Co. has been incorporated, with capital of \$10,000, for conducting steam laundry, by V. Smith, Robert W. McCoy of San Antonio, and E. T. Brogdon of Austin.

Seguin—Telephone System.—Commercial Telephone Co. has been granted franchise for construction of system in Seguin.

Smithville—Cannery.—V. S. Robb, Jr., is reported as interested in a proposition to establish cannery.

Sour Lake—Oil Wells.—Chartered: J. J. Tobin Oil Co., capital stock \$40,000, to drill for oil; incorporators, L. E. Daniell, J. J. Tobin, M. M. Jackson, M. A. Robertson and Stephen Jackson.

Sour Lake—Oil Wells.—Davy Crockett Oil Co. has been incorporated, with capital of \$50,000, by John O. Heaton of Sour Lake, T. H. Sanderson of San Antonio, Texas; John B. Ketterson of Houston, Texas, and others.

Taylor—Water-works.—Eastern parties, together with some of the directors of the Cleburne (Texas) Water, Ice & Lighting Co., have purchased the Taylor Water-Works, as recently reported, together with the 10-ton ice plant. L. W. Chase for the present will have general superintendence of the plant, and of any improvements which may be made. Officers are L. W. Chase, president, Cleburne, Texas; John K. Bryden, Pittsburg, Pa., vice-president, and Ralf J. Corson, Cleburne, Texas; secretary-treasurer.

VIRGINIA.

Boydton—Live-stock Company.—Mecklenburg Live-Stock Co. has been incorporated, with capital from \$500 to \$25,000, by E. H. Russell, B. E. Cogbill, E. H. Potts and W. L. Clock.

Cleburne—Coal Mines and Coke Ovens.—The Swords Creek Coal & Coke Co. has been organized, with capital stock of \$25,000, to develop coal mines and build coke ovens. About 350 acres of coal properties have been purchased by the company. C. W. Hall is president, and H. A. Alexander, secretary-treasurer.

Danville—Tobacco Factory.—Rucker & Whitten Tobacco Co. of Martinsville, Va., contemplates building a branch factory at Danville.

Fredericksburg—Gold Mine.—Mrs. A. L. Bogman of Atlanta, Ga., has purchased the Melville gold mines in Orange county, Virginia, for \$10,000.

Graham—Mattress Factory.—William Mitchell will establish a mattress factory, and has contracted for the erection of the building, a three-story 40x50-foot structure.*

Heathsville—Fertilizer Factory.—Hayne Brothers Company has been incorporated, with capital of from \$10,000 to \$50,000, for manufacture of fertilizers, by John A. Hayne, T. W. Hayne, William Blundon, E. W. Edwards and George N. Reed.

Lexington—Fertilizer Lime Plant.—Rockbridge Lime & Stone Co., organized recently, has completed its plant for manufacturing fertilizer lime, daily output to be about ten tons. Lawrence Embree is secretary.

Liberty Furnace—Iron Furnace.—John Gaffney of St. Louis, Mo., has, it is said, purchased the Liberty furnace, mineral lands, etc., at Liberty Furnace, and will repair and put the furnace in blast.

Luray—Ice Factory.—B. M. Jobe will erect ice factory of seven and one-half tons per day capacity to cost \$7500. Main building will be 65x50 feet.

McKenney—Lumber Mills.—McKenney Manufacturing Co. has been incorporated, with capital of \$3000 to \$25,000, for manufacture of lumber, to deal in real estate, etc., by B. E. Cogbill, J. R. Beck, H. M. Woolbridge and E. G. Cobb.

Mossy Creek—Flour Mill.—Augusta Milling

& Mercantile Co. will build 75-barrel flour mill.

Mt. Laurel—Grain Mill.—Roller & Watkins contemplate building corn and wheat mill.

Norfolk—Oyster Company.—York River Oyster Co. has been incorporated, with capital of from \$3000 to \$10,000, by George W. Amory, Robert F. Caulfield, Reverly Stewart, Herman Camp and others.

Norfolk—Cotton Compress.—Incorporated: International Compress Co., capital \$25,000 minimum and \$100,000 maximum; Samuel B. Farrell, president; John H. Rodgers, vice-president; W. Gordon McCabe, Jr., secretary and treasurer; W. M. Jones, Jr., and J. W. Perry.

Norton—Brick Works.—E. G. Buck is president; T. E. S. Bailey, vice-president; E. H. Ould, secretary-treasurer, and G. Huettel, manager, of the Norton Silica Brick Co., reported recently as incorporated with capital of \$15,000 for manufacture of brick from sand and lime. Address the secretary-treasurer for particulars.*

Portsmouth—Pie Factory.—Virginia Pie Co. has been organized, and will install equipment for baking pies. J. M. Wilson is manager.

Portsmouth—Mattress Factory.—Frank Lindsay has engaged Edward Oberman to prepare plans and specifications of building for his mattress factory, reported last week. The structure will be three stories high.

Richmond—Electric-light Plant.—Samuel Cohen and associates are applying for franchise to establish electric-light plant.

WEST VIRGINIA.

Ansted—Coal Mining and Coke Manufacturing.—Incorporated: Nuckolls Coal & Coke Co., to mine coal and manufacture coke; capital stock \$50,000; incorporators, T. C. McVey and J. E. Vawter, Ansted, W. Va.; E. L. Nuckolls and H. C. Robertson, Fayetteville, W. Va.; A. D. Hurrah, Pratt, W. Va., and others.

Berkeley Springs—Glass-sand Mines, etc.—Felker & Zimmers of Pittsburg, Pa., have purchased from H. H. Hunter of Berkeley Springs eighty acres of land containing glass sand deposits. They will open mines and later on manufacture silica brick.

Bluefield—Coal Mines and Coke Ovens.—A \$300,000 corporation has been organized to develop coal mines and build coke ovens, the plant to have a daily capacity of 1000 tons. C. Metsch is president; John W. Boch, vice-president; M. E. Miskell, treasurer, and R. E. Rayman, secretary, all of East Liverpool, Ohio. Capitalists of Camden, N. J., are also interested.

Bluefield—Electrical Supplies.—Chartered: Climax Electrical Supply & Construction Co., to buy and sell all kinds of electrical supplies; capital \$10,000; incorporators, W. P. Hawley, P. M. Walker, R. S. Jones, T. A. Martin and W. A. Panke.

Clarksburg—Real-estate Development.—Central Development Co. has been incorporated, as recently reported, with capital of \$100,000. Address 307 North Fourth street.*

Durbin—Tannery.—Pocahontas Tanning Co. will build a tannery at Durbin. Site has been selected and 100,000 acres of oak and pine timber land has been bought. John G. Hoffman of Wheeling, W. Va., is president.

Elkins—Coal Mines and Coke Ovens.—Morgantown Coal & Coke Co., recently reported chartered with \$125,000 capital, has organized with directors William A. Morgart, George D. Landwehr, Cumberland, Md.; J. A. Berkey, Somerset, Pa.; Watson H. Linburg, Trenton, N. J., and N. G. Keim, Elkins, W. Va. William A. Morgart was chosen president; Geo. D. Landwehr vice-president, and H. G. Keim, secretary and treasurer. The company will mine coal and manufacture coke, and owns a coal tract in Barbour county, West Virginia, underlaid with the Upper and Lower Freeport and the Kittanning veins. The Upper Freeport seam is said to be nine feet thick.

Fairmont—Coal Mines and Coke Ovens.—Chartered: Madeira Hill-Clarke Coal Co., to mine coal and manufacture coke; capital \$300,000; incorporators, J. A. Clark of Fairmont, P. C. Madeira, Philadelphia, Pa.; R. C. Hill, New York, N. Y.; Samuel Bell, Jr., and H. H. Smith, Philadelphia, Pa.

Gladys—Lumber Plant.—Richard Chaffey, H. R. Warfield and R. McMillen, all of Elkins, W. Va., have organized Gladys Lumber Co. and will build saw-mill of 75,000 feet daily capacity, large shingle mill, etc., at Gladys.

Huntington—Land Improvement.—Chartered: Big Sandy Improvement Co., capital \$25,000, by S. H. Bowman, S. A. Moore, C. J. Zirkle, M. Peck of Philippi, W. Va., and J. I. Neal of Huntington.

Hinton—Summer Resorts.—Chartered: Greenbrier Springs Co., to purchase and de-

velop the "Bargers Springs" property as summer resort; capital \$50,000; incorporators, E. S. Dunn, W. L. Weeking, O. O. Cooper, Jas. H. Miller and others.

Huntington—Timber Company.—Chartered: Virginia Timber Co., with capital of \$25,000, for dealing in timber lands and manufacturing lumber, by F. B. Easlow, W. W. Miller, C. L. Porter and others.

Huttonsville—Mercantile.—Finn & Morgan Company has been incorporated, with capital of \$4000, for conducting undertaking and mercantile business, by A. W. Finn and others.

Kingwood—Coal Mines, Coke Ovens, etc.—Taylor & Saylor Coal & Coke Co. has been incorporated, with capital of \$100,000, by J. H. Bowman, Frank Taylor, M. H. Baker, J. E. Giffin, J. J. Bowman of Stoytown, Pa., and others.

Leewood—Bottling Works.—Ford-Imboden Company has been incorporated, with capital of \$10,000, for bottling ginger ale, etc., by R. K. Ford, A. M. Prichard, R. C. Sweet and others of Charleston, W. Va.

Lewistown—Coal Mines.—West Virginia Peerless Coal Co., lately reported incorporated under Cabin Creek, will continue the development of mines operated for the past year by West Virginia Coal Co., which was not incorporated. George Henderson is president, and H. W. Shisby, secretary.

Logan County—Saw-mills.—L. W. May Lumber Co. of Steubenville, Ohio, has bought 5000 acres of timber lands in Logan county, and large saw-mills will be erected.

Martinsburg—Lumber Manufacturing.—Incorporated: P. T. Noland Lumber Co., capital \$20,000, by Nelson R. Roberts, Middleway, W. Va.; Charles Jones, Lee Town, W. Va.; P. T. Noland, Great Cacapon, W. Va.; J. Frank Fields, Hancock, Md., and A. C. Nadenbush, Martinsburg.

Nolan—Coal Mines.—Chartered: Borderland Coal Co., to operate and sell coal properties, etc.; capital \$100,000; incorporators, J. S. Tipton, J. P. Woods, E. B. Fishburne, S. H. Helronimus, N. W. Phelps, E. W. Tinsley, J. B. Fishburn, E. L. Stone and D. M. Toland, all of Roanoke, Va.

Parkersburg—Construction Company.—Incorporated: West Penn Construction Co., for construction and equipment of railways, water-works, electric-light plants, etc.; capital \$50,000; incorporators, T. F. Barrett, Parkersburg; J. C. Boyd, Glenshaw, Pa.; Edward McSweeney, William McKinley and Jonathan Barrett of Pittsburg, Pa.

Parkersburg—Sucker-rod Works.—Incorporated: National Sucker Rod Co., to manufacture wood sucker rods, etc., by William Hardee, A. C. Longbrake, C. R. Clapp, E. R. King and R. J. Free of Toledo, Ohio; capital is \$10,000.

Philippi—Mine Supplies.—Incorporated: Philippi Mine Supply Co., to manufacture and deal in mine and mill machinery; capital \$10,000; incorporators, B. H. Pough, C. H. Dent, C. I. Zirkle, S. A. Moore and S. H. Bowman.

Philippi—Real Estate.—West Buchanan Real Estate Co. has been incorporated, with capital of \$20,000, by Chas. Zirkle, J. R. Thotter and J. W. Stuart of Buchanan, W. Va., and others.

Powells—Coke Ovens, etc.—Powell Coal & Coke Co., reported last week, is building 100 coke ovens at Powell Station, erecting crusher, washer, houses, etc., and opening up mines. W. B. Virgle & Co. have contract for ovens and houses. D. D. Britt is engineer; Wilbur L. Dunn, superintendent. Company's general office is 601-602 Farmers' Bank Building, Pittsburg, Pa.

Ronceverte—Machine Shops, etc.—Chesapeake & Ohio Railway Co. will erect round-house and machine shops at Ronceverte; C. E. Doyle, general manager, Richmond, Va.

Sutherland—Building and Fire-Brick Company.—Chartered: Buff Building & Fire-Brick Co., with capital of \$15,000, by T. G. Saunders of Sutherland, W. Va.; W. W. Mucklow of Charleston, E. P. Mucklow of Pratt, W. Va., and others.

Tyler County—Manufacturers.—Incorporated: Tyler Company, to deal in manufactured products; capital \$120,000; incorporators, Harrison Black, N. F. Wall, J. W. Hodli, D. C. Matzenbacher and G. E. Bock of Sharpsburg, Pa.

Welch—Coal Lands.—C. W. Coniter and F. B. Matthews of Chicago, Ill., have purchased from H. Lyon Smith of No. 69 Wall street, New York, 2500 acres of coal land on Clear creek in West Virginia.

Wheeling—Brass and Iron Works.—Chartered: Fisher Manufacturing Co., for manufacturing iron, brass, etc.; capital \$50,000; incorporators, J. L. Fisher, J. L. Bonar of Moundsville, W. Va.; S. S. Spragg, C. R. Goetze, W. P. Megrall of Wheeling.

Wilson—Lumber Plant.—Wilson Lumber Co. has purchased 12,000 acres of timber

lands, and will build lumber plant to develop the property. A saw-mill of 100,000 feet capacity daily will be erected.

Wheeling—Plano Factory.—Hoehl & Gleesler Plano Co., reported last week as increasing capital by \$80,000, will erect factory for an output of 500 planos per annum. Building will be three stories high, 60x120 feet. F. Faris is architect in charge.

INDIAN TERRITORY.

South McAlester—Plaster Works.—John O'Neal will organize company with capital stock of \$50,000 to establish plant for manufacturing elastic pulp plaster by new patent process.

OKLAHOMA TERRITORY.

Anadarko—Water-works.—System of water-works will be constructed. Address The Mayor.

Foss—Hardware.—J. R. Bonebrake and J. H. Nail of El Reno, O. T.; H. E. Bonebrake of Weatherford, O. T., and B. D. Rice of Foss have incorporated the Bonebrake-Rice Hardware Co., with capital stock of \$5000.

Guthrie—Gas Plant.—Guthrie Gaslight, Fuel & Improvement Co., with a capital stock of \$100,000, has been chartered to build and operate a gas plant for light and fuel purposes. The directors are Henry S. Clark of Chicago, Ill.; William R. Payne and O. P. Cooper of Guthrie.

Kaw City—Mill and Elevator.—Incorporated: Kaw City Mill & Elevator, with \$30,000 capital, by K. T. Hotchkiss of Bloomfield, Iowa; H. Hotchkiss and H. E. Guy of Kaw City.

Lawton—Mining.—Oreana Mining & Milling Co. has been incorporated, with capital stock of \$1,000,000, by Thomas Bixby, Henry Cassin, J. C. Tousley and others.

Okeene—Hardware and Implement Company.—Okeene Hardware & Implement Co. has been incorporated, with capital of \$6000, by C. W. Cressler of Scranton, Iowa; S. J. Slebert, E. E. Cressler and others.

Oklahoma City—Mercantile.—Whitman Brothers Company has been incorporated, with capital of \$30,000, by C. P. and J. T. Whitman and others.

Oklahoma City—Oil Wells.—Incorporated: Oklahoma-Texas Oil Co., having a capital stock of \$2,500,000. Its directors are F. H. Miller of Galveston, Texas; David Russell of Houston, Texas; J. H. Green and R. W. Edwards of Dubuque, Iowa; C. H. Myers, A. L. Elliott and J. A. Branniff of Oklahoma, H. D. Bagley and J. P. Elmer of Chicago, Ill.

Oklahoma City—Seed.—W. O. Church, J. M. Martin, C. H. Walker and O. J. Lowenthal have incorporated the Walker Seed Co., with capital of \$15,000.

Verden—Ginning Company.—Chartered: The Verden Ginning Co., with capital of \$3000, by W. H. Helm, E. S. Pierson, John Downing and others.

BURNED.

Camden, Ark.—Ritchie & Co.'s cotton compress; loss reported as \$50,000.

Memphis, Tenn.—Kozler & Hein's Memphis Steam Laundry at 230 Second street; loss \$30,000.

Salt Lick, Ky.—Stave mill, warehouse and lumber-yards of W. J. Feil & Son; estimated loss \$35,000.

Tampa, Fla.—Cuban American Veneer & Transportation Co.'s plant; loss \$6000.

BUILDING NOTES.

* Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery, Proposals and Supplies Wanted."

Abbeville, Ga.—Courthouse.—Wilcox county will vote September 9 on issue of \$50,000 of bonds for erection of new courthouse. Address S. S. Fryar, clerk, commissioners roads and revenue.

Aiken, S. C.—Hotel.—J. F. Ong of Macon, Ga., reported last month as having contract for foundation of \$200,000 hotel, has been awarded the other contracts. He has sublet electric wiring to J. I. Linder of Aiken, plumbing to C. H. Rions Co. of Jacksonville, Fla., and lumber to W. F. Doby of Aiken Lumber Co.

Atlanta, Ga.—Station.—John T. Wilson, Metropolitan Bank Building, Washington, D. C., will receive bids until September 5 on the Atlantic Terminal Co.'s new passenger station and train shed at Atlanta. Estimates must be made in strict accordance with plans and specifications prepared by P. Thornton Marge, 1725 H street, Washington, D. C. It is reported that the cost will be approximately \$1,000,000.

Baltimore, Md.—Hotel.—James L. Kernan, office in Union Trust Building, will build a hotel eight to ten stories high, to cost about \$350,000, instead of rebuilding and continuing the Casino, recently damaged by fire while in course of construction.

Beaumont, Texas—School Building.—City council has recommended the acceptance of the bid of E. Nelson at \$67,861 for construction of school building.

Birmingham, Ala.—School.—City will vote on issue of \$250,000 of bonds for erection of high-school building, not \$500,000, as reported during the week. Address Mayor Drennen.

Chattanooga, Tenn.—Club Building.—Mountain City Club will erect building with all modern improvements to cost about \$25,000. Adams & Bearden are preparing plans and specifications.

Cherokee, O. T.—Lodge Building.—Incorporated: I. O. O. F. & M. W. of A. Investment Co., with \$4000 capital, for the purpose of constructing a lodge building. The incorporators are W. A. Carlisle, J. C. Beatty, Grant Woodmansee, P. H. Wimpey, W. H. Pilgrim and Robert Barry.

Chester, S. C.—School.—H. Edward White, Rock Hill, S. C., has made plans for six-room schoolhouse at Chester, to be of brick, with heating and ventilation, slate blackboards, plumbing, etc.; cost \$8000; contract for erection not awarded.

Clarksburg, W. Va.—Bank and Office Building.—Six-story bank and office building will be erected at cost of \$100,000. Address S. C. Dehnam or V. L. Highland.

Clarksburg, W. Va.—Bank Building.—Empire National Bank, now organizing, will erect six-story bank building. Address, care of Sherman C. Denham.

Clover, S. C.—Dwelling.—Ed Price will erect residence. Capt. W. I. Brison has the contract.

Columbus, Ga.—Store Building.—Blanchard & Booth Company has awarded contract to H. J. McLeod for remodeling store building.

Dallas, Texas—Office Building.—V. R. Parks will erect store and office building 54x30 feet, two stories, brick, to cost \$9000, with modern plumbing, gas and electric wiring. W. H. Wilson, architect, 257 Elm street, prepared plans and specifications.

Danbury, N. C.—Courthouse.—L. W. Cooper of Charlotte, N. C., has contract for erecting Stokes county's proposed courthouse recently reported. The cost will be \$30,000. Wheeler & Runge of Charlotte, N. C., prepared the plans.

Elkins, W. Va.—Hotel.—H. G. Davis and associates are having plans prepared for the erection of their proposed 100-room hotel.

Fernandina, Fla.—Jail.—Contract for building county jail and moving old one has been awarded to Pauly Jail Building Co. of St. Louis, Mo., at \$14,811.65.

Fort Washington, Md.—Buildings.—Abe S. Bickham, constructing quartermaster, U. S. A., Fort Washington, Md., will receive sealed proposals in triplicate until September 11 for following frame buildings: One bachelor officers' building, eight sets; one wagon shed, one ordnance storehouse, an addition to coal shed, etc. Information regarding plans and specifications may be obtained at constructing quartermaster's office.

Greenwood, Miss.—Church.—Plans and specifications have been completed for erection of church, and bids will be opened within thirty days. Plans on file at office of McClung Gardine.

Gulfport, Miss.—Hotel.—Mexican Gulf Land Co., incorporated with \$100,000 capital, will build or assist in building a hotel, clubhouse and public bathhouse. Leland J. Henderson is secretary.

Guthrie, O. T.—Lodge Building.—Guthrie Lodge of Odd Fellows will erect three-story building at a cost of \$25,000.

Heath Springs, S. C.—Building.—H. Edward White of Rock Hill, S. C., has prepared plans for store building and warehouse for Springs Banking & Mercantile Co. 80x120 feet; cost \$5000.

Greenville, Miss.—P. H. Weathers will prepare plans for new \$5000 building for Elysian Club.

Italy, Texas—School.—D. Mahoney of Waxahachie, Texas, has contract at \$9528 for erecting two-story brick school building at Italy.

Jackson, Miss.—Residence.—Dr. H. A. Gant has contracted for erection of \$7000 residence.

Jacksonville, Fla.—Library.—Trustees of Jacksonville Free Public Library will open bids for construction of library building on September 8. A certified check of \$1000 must accompany each bid. Surety bond of \$10,000 will be required from contractor. Plans and specifications can be seen and had by applying to H. J. Klutho, architect, 222 West

Adams street; J. R. Parrott, president of trustees.

Kemper, S. C.—Warehouse.—Kemper Tobacco Warehouse has been incorporated, with capital of \$2000, and C. P. Hayes, president.

Lexington, Ky.—Flats Building.—Frank Corbin has contract for flats building for W. H. May, as recently reported; first floor will be drug store, for which fixtures will be wanted; size 25x80 feet; cost \$10,000.

Little Rock, Ark.—Capitol Building.—Contract for completion of new Capitol has been awarded to Caldwell & Drake of Columbus, Ind., on their bid of \$947,846. The contract calls for completion of building by December 23, 1905.

Meridian, Miss.—Courthouse.—Plans of Krouse & Hutchinson will be accepted for proposed \$100,000 courthouse; building will be two stories, of brick, stone and terra-cotta, 120x120 feet. Address County Court.

Moultrie, Ga.—Store Buildings.—W. A. Webb has contract for building store for Mr. W. M. Simmons. Messrs. A. Huler and D. N. Horne will erect brick store buildings.

Murfreesboro, N. C.—Hotel.—James M. Haynes has decided to build a hotel at a cost of \$20,000.

New Orleans, La.—Wharves.—Sealed proposals will be received by board of commissioners, port of New Orleans, until September 15 for construction of Celeste street steel shed. Deposit \$2000; payments 80 per cent. monthly; bond in full amount of contract. Plans, specifications, proposals, forms, etc., on file at office of engineers, Cleman, Malochie & Villere, 1109 Hennen Building, New Orleans, by whom full sets will be furnished on deposit of \$15.

New Orleans, La.—Wharf.—Sealed proposals will be opened September 1 for the construction of the Celeste street wharf, materials for which will be furnished. A deposit of \$1000 is required from bidders, successful bidder to bond for 100 per cent. of estimated value of contract. Plans, specifications, proposal forms, etc., on file with Engineers Coleman, Malochie & Villere, 1109 Hennen Building; Hugh McClosky, president commissioners port of Orleans.

Ocella, Ga.—Bank Building.—The People's Bank will erect a two-story office building. Warren Paulk is president.

Paducah, Ky.—Business Building.—Paducah Realty Co. has, it is reported, had plans made for erection of four-story business building.

Raleigh, N. C.—Auditorium.—Baptist Female University will accept plans by Hook & Sawyer, Charlotte, N. C., for its proposed auditorium; building to be 100x110 feet; seating capacity 2500; to have large pipe organ, etc. Its cost will be about \$30,000.

Salisbury, N. C.—Sanitarium.—Whitehead Stokes Sanitarium has awarded contract for erection of additional building.

San Antonio, Texas—Schools.—City will vote September 12 on issue of \$50,000 of school bonds recently reported. Address The Mayor.

Senatobia, Miss.—School.—City will award contract August 25 for erection of schoolhouse, the architect of which is E. Ross Chamblin, 721 Garrison avenue, St. Louis, Mo. Harper Johnson is mayor.

Shawnee, O. T.—Hotel.—Mrs. E. T. Holmes has arranged to rebuild Holmes Hotel, recently burned. Plans and specifications have been obtained for three-story structure 50x120 feet to have all modern improvements.

Spencer, W. Va.—Hospital.—West Virginia Architect & Building Co., Clarksburg, W. Va., has received contract at \$29,470 for erection of addition to State Insane Hospital.

Spray, N. C.—Town Hall.—Spray Drug & Chemical Co. will erect three-story brick building for storeroom, offices and town hall. Rufus R. Ray has charge.

St. Louis, Mo.—Fair Building.—Sealed proposals will be received until September 1 at the office of the Texas World's Fair Commission, No. 406 Linz Building, Dallas, Texas, for erection and completion of the Texas building on World's Fair grounds, St. Louis, Mo., according to plans and specifications on file at office of general manager of Texas World's Fair Commission, Dallas, and at office of C. H. Pake, architect, Austin, Texas. Certified check for \$2500 must accompany each proposal; \$10,000 bond required and usual rights reserved.

Thomasville, Ga.—Dwelling.—John Wade of Cleveland, Ohio, will build \$75,000 dwelling in suburbs of Thomasville.

Tuskegee, Ala.—Stores.—Chas. W. Thompson is preparing to erect six brick stores, with hotel above. Contract has not been awarded.

Washington, D. C.—School Building.—Engineer Commissioner John Biddle has recom-

mended that contract for construction of eight-room public school building be awarded to Burgess & Parsons for \$38,383.

Washington, D. C.—Dwellings.—Kennedy & Davis, builders, are preparing plans for apartment-house to be composed of seven buildings having a total of twenty-four flats.

Washington, D. C.—Apartment-house.—Thomas Galtner of Baltimore, Md., will erect apartment-house, three stories, 78x90 feet, to cost \$35,000. Geo. S. Cooper, Washington, is the architect, and John H. Nolan, Washington, is the builder.

Washington, D. C.—Dwellings.—John H. Nolan will build twenty-two apartment-houses at a cost of \$130,000. Plans and specifications to be prepared by Architect Geo. S. Cooper.

Waynesville, Mo.—Courthouse.—County court of Pulaski county has employed H. H. Hohenfeld, architect, Rolla, Mo., to prepare plans and specifications for new courthouse at Waynesville to cost \$15,000. Contract for erection will be awarded shortly; E. G. Williams, clerk county court.

Welsh, W. Va.—Hall Building.—S. B. Chandler of Bluefield, W. Va., is preparing plans and specifications for three-story hall and store building to be erected at Welsh.

Wheeling, W. Va.—Factory Building.—Bids will be received for the excavation, concrete work, stone work, brick work, carpenter and mill work, cast iron, steel beams and galvanized-iron work for Bloch Bros.' eight-story factory building. Plans and specifications can be seen at office of company at Fortieth and Water streets, or of architect, Chas. D. McCarty, Reilly Building.

RAILROAD CONSTRUCTION.

Railways.

Ada, I. T.—Eby & Stocker, railroad contractors, write the Manufacturers' Record confirming the report that they have part of the contract for building the Midland Valley Railroad, which is to extend from Greenwood, Ark., to Bokoshe, I. T., with a branch from Monticelli to Hartford, Ark.

Alexandria, La.—A correspondent informs the Manufacturers' Record that a surveying party is now in the field locating the most direct route from Winfield to Alexandria, La. This is being done in the interest of the Arkansas Southern Railroad, of which J. A. Knox of Ruston, La., is the chief engineer.

Ansted, W. Va.—William N. Page, president of the Deepwater Railway, states that his line has been located from Deepwater, in Fayette county, to the Bluestone river, in Mercer county, a distance of ninety miles. Five miles have been completed, and are now in operation; fifty-one miles are under contract, grading being in progress. The remaining thirty-four miles will be let as soon as the rights of way can be finally arranged. Mr. Page is chief engineer, and C. P. Howard of Beckley, W. Va., is the assistant chief engineer in charge.

Alice, Texas.—Construction work is reported resumed on the St. Louis, Brownsville & Mexico Railway at Robsville, after delays caused by rains. Col. Uriah Lott of Alice is president.

Anniston, Ala.—Last week mention was made of the report that J. M. Barr, general manager of the Seaboard Air Line Railway, had stated his company will arrange about next January for extending the railway on to Anniston upon completion of the main line from Birmingham to Atlanta. Mr. Barr states that the decision to do this has not yet been made, although the work is contemplated. His offices are at Portsmouth, Va.

Beaumont, Texas.—Beaumont Traction Co. has received franchise for an extension of its electric railway along Highland avenue from Beaumont to Gladys City, a distance of about three miles.

Beaumont, Texas.—Reported that the survey for the proposed electric railway from Sour Lake to Houston has been completed. Ed. Kennedy and others are interested.

Beaumont, Texas.—The Beaumont & Port Arthur Electric Railway has elected officers as follows: G. W. Meeker, president and general manager; Capt. Wm. Weiss, first vice-president; J. B. Lynn of Springfield, Ohio, second vice-president; Theodore Weynaut, secretary, and B. R. Norvell, treasurer. President Meeker is reported as saying that steps to construct the line will be taken immediately.

Amarillo, Texas.—Charter has been approved for the Amarillo, Plainview & Southern Railway Co., capital stock \$75,000, for construction and operation of railroad from Amarillo through the counties of Potter, Randall, Swisher and Hale to Plainview, the county-seat of Hale county, a distance of about seventy-five miles. Those incorporating are J. N. Donohoo of Canyon City, L. A. Knight, J. H. Wayland, J. H. Slayton, L.

Lee Dye, R. C. Ware, Chas. McCormack, W. C. Mathes, R. R. Smyth, E. W. Dyer and L. S. Kinder of Plainview, Texas.

Beaumont, Texas.—Beaumont, Sour Lake & Port Arthur Traction Co., lately mentioned as incorporated to build an electrical railway to Sour Lake, Saratoga and Port Arthur, has engaged George W. White as chief engineer. J. B. Linn will be consulting engineer, and have charge of the electrical department. This railway will be, as previously stated, about fifty-two miles long. Address company care G. W. Meeker.

Canadian, I. T.—Directors have been elected for the Denton, Decatur & Western Railroad and the North Texas & Louisiana Railway as follows: W. Henry Sisson, president, St. Louis, Mo.; J. L. Morton, vice-president, Ann Harbor, Mich.; Wesley Sisson, assistant to the president, New York; M. J. Healy, vice-president and general manager, Decatur, Texas; Will A. Miller, secretary and treasurer; J. H. Carswell, general attorney, and Stuart Miller, general real-estate agent, all of Decatur, Texas; James R. Turner, fiscal agent, American Surety Co., New York. The foregoing information has been received by the Manufacturers' Record from General Manager Healy. He also says that the companies have been chartered, with \$2,000,000 capital, to build and operate a railway from Decatur to McKenney or Greenville, Texas, and to Mansfield or Alexandria, La.; also west from Decatur to Roswell, N. M., a total distance of about 700 miles.

Charleston, W. Va.—The Middle Creek & Gauley Railroad Co. has been chartered to build a railroad from a point at or near the mouth of Middle creek, in Clay county, by the most practicable route to Gauley Bridge, in Fayette county; principal office at Charleston. The incorporators are W. E. R. Byrne, Henry S. Cato, Samuel Stephenson and Russel G. Quarrier, all of Charleston, and E. L. Boggs of Big Otter.

Clarksburg, W. Va.—The Salem Terminal Traction Co. has voted to build its proposed line from Clarksburg to Salem, and has placed its order for rails and ties.

Clarksville, Tenn.—It is rumored that J. D. Neblett of Charlotte, Tenn., is conducting a surveying corps organized to survey a route for the proposed new railroad in Dickson county. The new line, it is said, will run from Pond Switch, the junction of the mineral branch of the Louisville & Nashville, to the Nashville, Chattanooga & St. Louis, through Charlotte to the Cumberland river at the mouth of Harpeth river.

Columbus, Miss.—The Columbus, Memphis & Pensacola Railway has been incorporated to build a line from Aberdeen to Columbus, Miss., and thence southeast through Alabama to Pensacola, Fla., about 250 miles. The incorporators are Judge Newman Cayce, Walter W. Weaver, Warren Cox, John A. Stinson, E. C. Chapman and P. W. Maer of Columbus, W. B. Walker of Aberdeen and Judge J. W. Buchanan of Memphis.

Dallas, Texas.—San Antonio & Aransas Pass Railway Co. has completed about forty miles of the preliminary survey for its extension, and will continue the work to Brownsville. Grading and tracklaying will begin soon. M. D. Monserrate, vice-president, San Antonio, Texas.

Elkins, W. Va.—Announcement is made that the Coal & Iron Railway has been opened from Elkins to Durbin, forty-seven miles.

Elkins, W. Va.—Capt. W. P. Smith of Elkins is building a railway three miles long for the Morrison & Bell Lumber Co. from Moribell, on the Coal & Iron Railroad, to the summit of Shaver mountain.

Gulfport, Miss.—Leland J. Henderson, secretary of the Mexican Gulf Land Co., informs the Manufacturers' Record that the company will build or assist in building a street railway, and wishes to correspond with parties who would be interested in such an enterprise as managers or investors.

Guthrie, O. T.—The joint extension of the Santa Fe and Rock Island systems from Chickasha to Paul's Valley, I. T., has been opened for traffic.

Houston, Texas.—E. B. Cushing, assistant to the president and engineer maintenance of way of the Gulf, Western Texas & Pacific Railway (Southern Pacific system), is quoted as saying that a survey has been made for an extension from Placedo to Copano, Texas, twenty-five miles. Contracts not yet awarded. J. S. Van Riper is locating engineer at Victoria, Texas.

Humboldt, Tenn.—Messrs. Dungan and Colingworth are endeavoring to complete arrangements for organizing a company to build a railroad from Humboldt to Dyersburg by way of Alamo and Friendship.

Jackson, Miss.—A meeting of stockholders has been held to revive the plan for building

the Jackson, Columbus & Northeastern Railroad, of which I. C. Enoch of Jackson is president, and who is interested in timberland development. It is reported that the line will be built from Jackson along the valley of Pearl river, reaching Carthage and Louisville on the line to Columbus, Miss., from which point it will enter coal fields in Alabama.

Johnson City, Tenn.—R. L. Dyer, chief engineer of the Caney River Railroad, writes the Manufacturers' Record: "We are building a line from Hunteale, Mitchell county, North Carolina, to Bald mountain, Yancey county, North Carolina, eighteen miles. An extension may also be built from Bald creek, which is ten miles from Hunteale, to Burnsville, twelve miles.

Juniata, Ala.—The Hollins, Heflin & Sylacauga Railroad proposes to build an extension immediately from Woodbine to Moriah, twelve miles, and the grading contracts are now ready to be let. The present line extends from Overbrook, on the Central of Georgia Railway, to Woodbine, about eight miles. The Kaul Lumber Co., formerly the Sample Lumber Co., John L. Kaul, president, is interested. John A. Edwards is chief engineer in charge.

Kansas City, Mo.—It is reported that Edward Dickinson, vice-president and general manager of the Kansas City, Mexico & Orient Railway, says that the company will build 200 miles of branch roads from its lines now under construction in Mexico. M. P. Paret is chief engineer, Kansas City.

Lapile, Ark.—The Little Rock & Monroe Railway Co. has been chartered to build a line from a point at or near Lapile, Union county, southward through Union county, Arkansas, and Union and Ouachita parishes, Louisiana, to a point at or near Monroe, La., a distance of about fifty miles. The directors are C. D. Johnson of St. Louis, president; E. A. Frost and E. W. Frost of Texarkana, Ark.; J. F. Rutherford of Pine Bluff, Ark., and J. E. Cavanaugh of Lapile, Ark.

Lawton, O. T.—Dispatches state that the Colorado, Oklahoma & Texas Railway will build from Pueblo, Col., to Sherman, Texas, by way of Lawton. Sealy Dunn is president of the company.

Louis, Ky.—The Louisa Railway has been incorporated to build a line from Levisa fork of the Big Sandy river to Strattons branch, near Louisa, four miles. The incorporators are R. D. Casterline, C. Y. Hays, W. L. Watson, F. J. Dixon and A. Carter, all of Louisa, and F. S. McConnell of Mt. Vernon, Ohio.

Louisville, Ky.—Joseph Huffaker writes the Manufacturers' Record that the Madisonville Traction Co. expects to build a line of railway from Madisonville to Nortonville or White Plains, to connect with the Illinois Central, thirteen miles. A permanent engineer has not yet been employed.

Mannington, W. Va.—The Mannington & Fairmont Electric Railway Co. has been incorporated, with \$150,000 capital, to build a line connecting those towns, about twelve miles. The incorporators are W. H. Furbee, J. T. Koen, F. W. Bartlett, A. L. Prichard, J. D. Huey, F. A. Prichard, C. E. Joffe, E. J. Thomas, A. C. Free, C. A. Snodgrass, C. R. Snodgrass, J. F. Beatty, E. C. Hartin and M. L. Bernidum.

Mayaville, Ky.—Current reports state that the Louisville & Nashville Railroad Co. will bridge the Ohio river at Mayaville and extend its railway to Columbus, Ohio. It is believed that authentic announcements regarding this extension will soon be made public. R. Montfort is chief engineer; office at St. Louis, Mo.

Mobile, Ala.—W. W. Hayden, assistant engineer of the Illinois Central Railroad at Memphis, Tenn., has been appointed assistant to the president of the Mobile, Jackson & Kansas City Railroad, and will have entire charge of its construction work.

Mountain Home, Ark.—The White River & Mountain Home Railway Co. has elected directors as follows: T. N. Chenoweth of Mountain Home, W. Howard Brown of Cotter, C. S. Slayback of Mountain Home, A. D. French of Shelton, Conn., and J. W. C. Wilson of Rockwood, Tenn.

Nashville, Tenn.—Engineers will begin this month locating the line of the proposed Tennessee Interurban Railroad, which will comprise when built electric railways connecting Nashville with Gallatin and Columbia. C. W. Ruth of Pittsburgh, Pa., is the promoter of the Interurban, and is reported to have stated that plans for financing the enterprise are progressing favorably.

Nashville, Tenn.—Information received by the Manufacturers' Record from an authoritative source is to the effect that the Nashville, Chattanooga & St. Louis Railway and the Tennessee Central Railroad will probably build an extension within the next year

to coal and timber lands owned by the North American Coal & Coke Co., which owns 40,000 acres in Cumberland county, Tennessee. The officers of the company are: President, Eugene D. Hawkins, New York, N. Y.; vice-president and general manager, J. M. Overton; treasurer, E. A. Faulhaber, and secretary, Overton Fullton, all of Nashville, Tenn.

Paducah, Ky.—The new Paducah & Cairo branch of the Illinois Central Railroad, thirty-five miles long, has been opened for business.

Palestine, Texas.—The International & Great Northern Railroad is reported to be making a survey from Maypearl to Dallas in order to connect the latter city with its Waco and Fort Worth line. J. D. Trammell is chief engineer at Palestine.

Palm Beach, Fla.—Dr. J. A. McLeny of Palm Beach is secretary and treasurer of the Florida Grand Trunk Railway, to extend from Dothan, Ga., via Tallahassee, Fla., to the west coast of Florida, with a branch to St. Andrews Bay. The president of the proposed road is Senator Mann of Jacksonville.

Portsmouth, Va.—It is reported that the Rock Island system and the Seaboard Air Line interests have acquired extensive options on water-front property. J. M. Barr is vice-president and general manager of the Seaboard at Portsmouth.

Oklahoma City, O. T.—J. F. Hinckley, chief engineer of construction "Frisco" system, writes the Manufacturers' Record that he has no information whatever concerning the construction of a "Friscio" line from Oklahoma City to Averdort. A report concerning this line was mentioned last week.

Richmond, Va.—The Chesapeake & Ohio Railway is reported to have begun a survey through the southeastern part of Albemarle county to connect the main line at Keswick with the James River division. F. I. Cabell is engineer of construction at Richmond.

Russellville, Ky.—It is reported that rights of way are being acquired by the Southern Kentucky Interurban Traction & Power Co. for its proposed line from Russellville to Bowling Green and Hopkinsville. The line was recently incorporated by C. W. Courts, J. N. McCutcheon and others.

Rutherfordton, N. C.—A party of surveyors is surveying the line for a railroad from Rutherfordton to Spartanburg, S. C., and are approaching the latter city. It is not known who the surveyors represent.

San Antonio, Texas.—The stockholders of the San Antonio & Aransas Pass Railway have approved its proposed extension from Alice to Brownsville, Texas.

Selma, Ala.—Watkins & Agee, contractors, are reported to have begun work at Soapstone creek, six and one-half miles from Selma, on a line to connect the Western Railway of Alabama with the Louisville & Nashville.

St. Louis, Mo.—The Missouri, Kansas & Texas Railway announces that it has leased part of the Missouri, Kansas & Oklahoma Railroad from Tulsa to Osage, I. T., 32.41 miles, and will hereafter operate it.

St. Louis, Mo.—The Missouri Pacific Railway announces that the Carthage & Western Line, about nine and one-half miles long, from Carthage to Neck City, Mo., via Carthage Junction, Alba and Purcell, has been opened for business.

Wheeling, W. Va.—John A. Howard, representative of the promoters of the proposed railway to be built to the Connellsville (Pa.) coke region, is reported to have stated that arrangements will be completed soon for building the system.

Wilkesboro, N. C.—A meeting will be held in Taylorsville on September 7 to consider plans to construct a railroad line from Hickory or Newton to Wilkesboro. J. W. White, mayor of Wilkesboro; F. B. Hendren, R. A. Spaulhour, J. M. Turner, J. M. Wellborn and others are interested.

Street Railways.

Beaumont, Texas.—The Beaumont Traction Co. has begun work on the Magnolia Avenue Line.

Belair, Md.—Town commissioners have passed an ordinance authorizing the Baltimore & Belair Electric Railway Co. to lay tracks and operate an electric railway. The ordinance provides that the work shall be commenced by December 31, 1905, and the road be in operation by December 31, 1906, and the work, when once begun, is to be continued with reasonable expedition. This company organized recently.

Bloxi, Miss.—Construction has begun on the Bloxi Electric Street Railway; W. A. White, attorney.

Clarksville, Tenn.—The Street Railway Co. will, it is reported, build an extension to Dunbar's Cave, three miles, and possibly other extensions will be built to New Providence and through South Clarksville.

Fort Worth, Texas.—City county of North Fort Worth has granted the Northern Texas Traction Co. the franchise to build and operate an electric street-car system on North Main street from the intersection of North Main street and Central avenue northward to the city limits.

Louisville, Ky.—J. D. Powers and other financiers are reported interested in a proposed electric railway from Columbia, Ky., via Elkhorn, Akron, Mannsville and Merriam to Lebanon, forty miles.

Memphis, Tenn.—Application has been made to the legislative council for a franchise for a city street railway company. The applicants are F. R. Harris, Rhea P. Cary, W. A. Buckner, T. F. Bast and M. M. Bosworth of St. Louis. Mr. Harris is reported as saying that he represents St. Louis capital.

Muskogee, I. T.—The Muskogee Traction Co. has been organized; capital \$300,000. It has been granted a franchise for a street railway, and proposes to build immediately; J. L. Wiseman, president; W. P. Dewar, vice-president; W. R. Eaton, secretary; Ruel Haskell, treasurer.

Salisbury, N. C.—Reports state that the Salisbury-Spencer Street Railway Co. has resumed work on the construction of its electric railway to Spencer, a distance of three miles. Construction materials are now being received, and the laying of track will begin at once. An extension to the Yadkin river, two miles distant, is also said to be assured.

Machinery, Proposals and Supplies Wanted.

Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. The MANUFACTURERS' RECORD has received during the week the following particulars as to machinery that is wanted.

Asphalt Blocks.—Proposals will be opened September 1 for laying about 7500 square feet around United States custom-house and post-office building at Charleston, S. C. Addresses of manufacturers of asphalt blocks are wanted. Address W. L. Harris, custodian.

Barrel Stock.—Baker, Stillwell & Hart, 421 Chalfoux Building, Birmingham, Ala., want barrel stock for making eight-hoop barrels, 19-inch heads, 30-inch staves; want carload lots.

Boiler.—Catawba Cotton Mills, Newton, N. C., wants to buy 150-horse-power horizontal boiler, new or second-hand; if second-hand, must be in first-class condition, stand pressure of at least 125 pounds, and be subject to Hartford inspection.

Boiler and Engine.—See "Lumber Mill."

Boiler and Engine.—See "Saw-mill."

Boilers and Engines.—See "Electrical Equipment."

Bottle Manufacturers.—Greenville Medicine Co., Leon P. Sawtell, manager, Greenville, S. C., wants to communicate with manufacturers of bottles.

Brick and Tile Manufacturers.—Stein Improved Chimney Construction Co., J. B. Dryer, president, Birmingham, Ala., wants to negotiate with brick and tile manufacturers with view to making contracts to furnish it with large quantities of radial, vitrified blocks of special design; colors red and buff; company to furnish dies.

Brick Machinery.—Norton Silica Brick Co., E. H. Ould, secretary-treasurer, Norton, Va., wants complete outfit for manufacture of brick from sand and lime, etc.

Brick Machinery.—C. N. Horrell, West Louisville, Ky., will be in the market for brick machinery.

Bridge Construction.—Rhodhiss Manufacturing Co., Rhodhiss, N. C., through its building committee, W. B. Bery, chairman, invites sealed proposals until August 24 for a steel bridge across Catawba river at the Rhodhiss Cotton Mills, with three stone piers forty feet high. Plans and specifications are now on file at office of Rhodhiss Manufacturing Co. Each bid must be accompanied by certified check for \$500. Usual rights reserved, and bond required. For further information address W. B. Bery, Morganton, N. C., agent for the Rhodhiss Manufacturing Co.

Bridge Construction.—W. G. Allen, A. G. Kimbrough and C. A. Sedinger, Memphis, Tenn., will receive bids September 14 for a system of steel bridges to be built on the turnpikes of Shelby county for a period of one or more years, at the option of county court.

Buttons.—John R. Young, Aberdeen, Miss., wants prices on all kinds of buttons.

Button-making Machinery.—Edward Archer, Farmerville, La., wants to buy pearl and other button-making machinery.

Button-making Machinery.—Barataria Canning Co., Biloxi, Miss., wants to correspond with manufacturers of machinery for making buttons from oyster and clam shells.

Carriage Factory.—Bean Bros., Winchester, Ky., wants prices on complete equipment for carriage factory.

Coffee-roasting Machinery.—E. S. P., care Manufacturers' Record, Baltimore, Md., wants catalogues and prices of coffee-roasting machinery.

Contractors' Equipment.—Greenwood Board of Trade, Greenwood, Miss., wants to buy an engine and several dump cars with which to haul gravel, using wood rails as tracks.

Corn Shredders.—Screven Co. Oil Mills, Savannah, Ga., wants to correspond with manufacturers of corn shredders.

Cotton Machinery.—Leaksville Cotton Mills, Spray, N. C., contemplates buying second-hand looms.

Electrical Apparatus.—Proposals will be received for replacing and repairing storage batteries in courthouse electric plant. Bids must be in sealed envelope, addressed to Board of Awards, and left with Harry F. Hooper, city register, on or before 11 A. M. August 24. Envelopes to be marked "Proposals for Repairs to Storage Batteries." Each bid must be accompanied by certified check for \$500, and made payable to mayor and city council, etc. Specifications to be had at office of inspector of buildings; Ed. D. Preston, inspector of buildings, Baltimore, Md.

Electrical Equipment.—Central Development Co., 307 North Fourth street, Clarksburg, W. Va., wants prices on boilers, engines, electrical equipment for mines and saw and planing-mill supplies.

Electric-light Plant.—City of Senatobia, Miss., is preparing to build electric-light plant, for which \$6500 is available. An electrician will probably be needed to supervise. Prices on material and equipment are now being submitted. Harper Johnson, mayor, can be addressed.

Engine.—See "Saw-mill."

Engine.—Rhode Island Company, Lawrence McRae, manager, Spray, N. C., is in the market for second-hand Corliss engine 150 to 200 horse-power.

Excavations.—Middlesex Banking Co., Memphis, Tenn., will open bids September 1 for the following excavations: Canal on Linden plantation, Washington county, Mississippi, 30,000 cubic yards; canal on Pettit plantation, Chicot county, Arkansas, 15,000 cubic yards; canals one and two, Trinidad plantation, Madison parish, Louisiana, 60,000 cubic yards. Profiles and specifications may be seen at office of Middlesex Banking Co. Usual rights reserved.

Excelsior Machinery.—L. Weitzel, Laurel, Miss., wants addresses of manufacturers of excelsior machinery.

Fireproof Material.—R. L. Newman, care of C. D. Mosher, No. 1 Broadway, New York, wants information regarding fireproof material that can be used as a substitute for asbestos, etc., for insulating boilers.

Grist Mill and Cotton Gin.—See "Saw-mill."

Heating Apparatus.—James Knox Taylor, supervising architect, Treasury Department, Washington, D. C., will open bids September 16 for low-pressure steam-heating apparatus in place for United States courthouse and postoffice building at Cumberland, Md., in accordance with drawings and specifications, copies of which may be had at above office or at office of superintendent at Cumberland.

Heating Plant.—H. Devereaux, Lawrence, Ark., wants to buy plant for heating grandstand at racetrack.

Ice Plant.—C. N. Horrell, West Louisville, Ky., will be in the market for ice plant.

Knitting Plant.—J. D. Hodges, Augusta, N. C., wants to buy equipment for knitting children's ribbed hosiery; also power plant for same (complete plant to cost \$12,000).

Lumber Equipment.—Houston & Liggett, Columbia, Texas, are in market for one second-hand skidder with ropes, pulleys, etc., complete; Louisiana delivery.

Lumber Mill.—Rugby Land & Investment

Co., 511 Woodward Building, Birmingham, Ala., will soon be in the market for 10-horse-power portable engine and boiler, 22-inch circular saw for cordwood, chopper for kindling wood and machine for building same.

Machine Tools.—Jackson Bros. Co., Waleville, Va., wants portable boring bar to bore taper holes in crank of engine and Wickes gang; also to bore cylinders of engine and pump.

Match Machinery.—H. H. H., 233 Elm street, Dallas, Texas, wants to correspond with makers of machinery for manufacturing matches.

Mattress Factory.—William Mitchell, Graham, Va., is in the market for machinery and supplies for mattress factory.

Mattress Materials.—Acme Spring Bed & Mattress Co., Fort Smith, Ark., is in the market for material with which to work ticking.

Mill Supplies.—Baker, Stillwell & Hart, 421 Chalfoux Building, Birmingham, Ala., wants prices on cast-iron engine pulley forty inches, forty-two inches or forty-four inches in diameter, crown face twenty inches wide by three-quarters to one inch thick, bore four and one-half inches, new or second-hand. Immediate shipment wanted.

Mill Supplies.—See "Electrical Equipment."

Milling Machine, etc.—Sealed proposals will be received at bureau of supplies and accounts, Navy Department, Washington, D. C., until September 8 to furnish at United States Naval Academy, Annapolis, Md., a Universal milling machine and tools, shaper, metal planer, slotting machine and sensitive drill. Blank proposals will be furnished upon application to the navy pay office, Baltimore, Md.; H. T. B. Harris, paymaster-general, U. S. N.

Mining Equipment.—See "Electrical Equipment."

Mill Supplies.—Manufacturers who desire to sell mill supply specialties direct to consumers through manufacturers' agents are invited to address Room 327, Austell Building, Atlanta, Ga.

Office Equipment.—Mutual Telephone Co., B. W. Stewart, general manager, Walnut Grove, Miss., is in market for some office apparatus.

Planing Mill.—See "Woodworking Machinery."

Power Plant.—See "Knitting Machinery."

Pulleys.—See "Mill Supplies."

Pulleys.—F. S. L., care Manufacturers' Record, wants prices on the following pulleys: One 46 inches diameter, 14-inch face; 2 48 inches diameter, 8-inch face; two 81 inches diameter, 9-inch face; one 62 inches diameter, 6½-inch face; one 31 inches diameter, 6½-inch face; one 12 inches diameter, 4-inch face. All of the pulleys to have crowning face and fit 2 7-16 shaft.

Railway Equipment.—See "Contractors' Equipment."

Railway Equipment.—Capital City Brick Co., 703 Empire Building, Atlanta, Ga., is in market for five to ten tons of 12-pound steel rails; quotations f. o. b. cars Atlanta; second-hand rails preferred; also wants same quantity of 16-pound rails.

Reduction Equipment.—Chattanooga Machinery Co., Chattanooga, Tenn., wants dealers' prices on mica-reducing machinery.

Road Machinery.—Town of Rockingham, N. C., wants to buy second-hand horse-power roller for rolling streets. Address T. C. Leak, Jr., chairman.

Road Machinery.—J. N. Swanson, commissioner, Lakeview, N. C., wants prices on road-making machinery—graders and scrapers—suitable for sandy section, with occasional deposit of clay and black soil. No rocks to contend with.

Salt-mining Equipment.—Ferguson Salt Mining & Development Co., J. S. Patrick, manager, Box 1166; Oklahoma City, O. T., wants prices on one-quarter-inch boiler steel for four pans 25x90 feet.

Saw-mill.—J. Littel, Lamb, Texas, wants addresses of manufacturers of saw-mill outfits, ginnyery equipment, grist mills and engines and boilers.

Saw-mill.—J. C. Hollingsworth, Mt. Airy, N. C., is in the market for second-hand 25 to 30-horse-power engine and saw-mill outfit.

Sewing-machine Manufacturers.—J. P. Little, Sumner, Fla., wants addresses of manufacturers of sewing machines (David preferred).

Steam Shovel.—L. E. Smoot, foot of Third street S. E., Washington, D. C., wants complete second-hand steam-shovel plant to be delivered by March 1, 1904.

Street Paving.—Thomas Crawley, mayor, Alexandria, La., wants bids on paving with asphalt and vitrified brick ten blocks on Fourth street.

Street Paving.—William Yerger, city clerk, Greenville, Miss., will receive sealed proposals until September 15 for furnishing material and labor necessary to construct approximately 30,000 square yards of brick pavement; principal items are 30,000 square yards brick pavement and concrete foundation, 10,000 lineal feet stone curbing. Each bid must be accompanied by certified check for \$500. Plans and specifications are on file at office of city engineer. Contractors are invited to submit their own plans and specifications with sealed bid for same. Usual rights reserved.

Variety Works.—See "Woodworking Machinery."

Vehicle-manufacturing Equipment.—See "Carriage Factory."

Water-works.—City of Houston, Texas, will open proposals September 14 for 21-year franchise for water-works plant; said plant to be adequate for growing city of 70,000 inhabitants. Bidders will indicate what compensation they will give for franchise and what concession allow on water rates. D. D. Bryan, city secretary, can give particulars.

Water-works.—Sealed bids for construction of water-works system for town of Washington, La., will be received up to September 14. Plans may be seen at mayor's office, Washington, or at office of Ira W. Sylvester, consulting engineer, Alexandria, La. For copies of specifications and information address August J. Muller, mayor.

Woodworking Machinery.—See "Carriage Factory."

Woodworking Machinery.—W. E. Small Spoke Manufacturing Co., Corinth, Miss., is in the market for a slab resaw machine.

Woodworking Machinery.—T. J. Bentley, Clarksville, Ga., will want machinery for manufacture of wagon hubs, spokes, felloes, etc.

Woodworking Machinery.—Beverly & Williams, proprietors of Thomasville Variety Works, Thomasville, Ga., want complete equipment of machinery for planing mill and variety works.

York Ammonia Fittings.—Users of ammonia fittings are invited to ask the York (Pa.) Manufacturing Co. for complete catalogue of the fittings made and kept in stock by that company. All the fittings are made in the company's own plant, and a large stock is kept on hand at all times in order to promptly meet demands from buyers. The Standard York machine, built by this company, is well known, having a national reputation, and the satisfaction which operators are receiving is proof of the equipment's merits.

TRADE NOTES.

Flouring Plant Offered.—An established flouring plant is offered for sale. It includes 50-barrel flour mill, corn mill, feed mill, 10,000-bushel elevator and complete equipment. Address A. L. Harned, Boston, Ky.

Seeking Capital.—In connection with the development of a seaside resort in the South it is desired to interest capitalists. Those who may wish to investigate this opportunity for investment are advised to address "South Carolina," care Manufacturers' Record.

Yazoo Delta Cotton Land.—The Yazoo Delta is famous, among other advantages, for its cotton lands. Tracts of land in the territory of the highest quality for profitable cotton-raising on a large scale can yet be purchased. Several thousand acres of this land are offered for sale by Owner, Room 402, 510 Pine street, St. Louis, Mo.

O. Perry Sarle.—Announcement is made that O. Perry Sarle will continue the civil engineering business at 146 Westminster street, Providence, R. I. Any contracts in the civil engineering line requiring expert work are solicited. The partnership between Mr. Sarle and Edward W. Shedd has been discontinued and dissolved.

Free Sites for Manufacturers.—Individuals or companies seeking free sites for manufacturing plants are invited to address the Point Pleasant Development Co., Point Pleasant, W. Va. The sites offered are on the banks of the Ohio river above high-water limit, and on the B. & O. Railroad. Plants for iron and steel working are preferred.

West Virginia Coal Lands.—Careful purchases in West Virginia coal lands are good investments, whether for immediate development or to hold for an advance in price. There are yet many valuable tracts of coal obtainable at reasonable figures. John E. Cross of Buckhannon, W. Va., is offering three especially valuable lots, including a

3000, 1000 and 7000-acre tract. He will furnish full information to inquirers.

Location for Woodworking.—Manufacturers looking for a site for woodworking plant are invited to address Lloyd Posey, Masonic Temple, New Orleans. Mr. Posey owns a good location, with timber land available to rail and water transportation.

Established Business for Sale.—An established plant now offered for sale offers to an active man an opportunity for good profits. It comprises a 50-horse-power water-power, now operating two 30-inch water-wheels on wheat, corn, lumber, etc. The location is four miles from railroad, and such enterprises as woodworking mills, brick works, etc., could be added to advantage. Either a managing or whole interest will be sold. Address H. Box 1, Fredericksburg, Va.

Machinery Bargains.—Some special bargains in machinery ready for immediate shipment are shown in the list issued under date of August 12 by Willis Shaw. Mr. Shaw is one of the well-known dealers in new and second-hand equipment of all kinds, and is giving satisfaction to numerous customers. Engines, boilers, dump cars and graders, steam shovels, locomotives, hoisting engines, air compressors, drills, pumps, etc., are shown in his latest list. Address the main offices at 171 La Salle street, Chicago.

Saw-Mill for Sale.—The operation of lumber plants comprises one of the important industries of the South, and opportunities for investment in this direction are always sought. An established plant, consisting of boilers and engine, dry-kiln, lath machinery, horses, mules, drays, etc., all modern equipment and only in use one year, is now offered for sale. Investors can secure a part interest or the entire property. Particulars can be obtained by addressing the Woodward Lumber Co. of Atlanta, Ga.

An Excellent Opportunity.—One of the best opportunities that has recently been announced for investment in established Southern enterprises is that at Lancaster, Ky., where a combined flour mill, elevator, planing mill and electric-light plant is for sale. The mill has a capacity of seventy-five barrels of flour daily; city franchises are held for the electric lighting; all the plants use one power. Because of the death of the owner, this property must be quickly sold. R. T. Ward, administrator of Wm. Ward Estate, can be addressed for further particulars.

Edgar M. Moore & Co.—This firm is one of the best known in Pittsburgh. It acts as purchasing agent and deals in steel rails, castings, coke and various other products and materials in the steel and iron field. Messrs. Edgar M. Moore & Co. anticipate increasing their business and securing customers throughout the South, and are prepared to supply prompt and lowest quotations on the products in which they deal. The Moore matchesafe, now being sent to friends of the firm, is a unique article. It is a representation of a pipe end, made of metal of ample size, well polished, and bearing the business card of Moore & Co.

Manufacturing Plants for Sale.—Valuable manufacturing plants, water-powers, wharf property, 950 lots of machinery, etc., are to be sold publicly on August 27 by Messrs. J. E. Conant & Co., the well-known auctioneers, of Lowell, Mass. The various properties include six manufacturing, ten lots of real estate, two water-power plants, one wharf property, machinery for making tacks, nails, rivets, etc., belting, shafting, engines, dynamos, paper-box and wrapper machines and numerous other mechanical equipments, formerly belonging to the Albert Tack Co., Taunton Tack Co., American Tack Co. and Loring & Parks, all of Massachusetts. All the properties mentioned will be sold without limit or reserve in lots to suit purchasers. This sale offers an unusual opportunity for buyers of machinery to secure first-class equipments of the character indicated at bargain prices. A catalogue in detail can be secured by addressing Messrs. Conant & Co.

Wire Rigging for the Reliance.—All America is interested in the international yacht races being held this week, the results of which will probably be known by the time this publication reaches its readers. An especially interesting feature of the equipment of the Reliance is its wire rigging. The wire rope used for rigging ranges from one-half inch to one and three-eighths inches in diameter. The builders of the Reliance required that pieces of all these ropes should be tested before shipment and show strengths varying from four and one-half tons for the smallest to ninety-four tons for the largest diameters. To obtain this strength the wires were

drawn from a special high grade of steel. The wires were tested before stranding, and the greater part was found to possess a tensile strength of more than 300,000 pounds per square inch. The finished rope developed in the breaking tests a strength from 15 to 20 per cent. higher than that required. The wires were drawn and the ropes stranded at the works of the John A. Roebling's Sons Co., Trenton, N. J.

Peabody Conservatory of Music.—Steadily and surely widening its scope year by year, the Peabody Conservatory of Music of Baltimore, Md., has become not only the great music center of the South, but an institution unsurpassed by any other conservatory in the country, and a notable force in the quickening of American musical appreciation and activity. It is under the direction of Harold Randolph, and has a staff of forty eminent American and European masters. Numerous places have benefited by George Peabody's munificence and broad sympathies. In Baltimore, where the philanthropist laid the foundation of his fortune, the great Conservatory and library give evidences of his wisdom and liberality. An important new appointment for the coming season is that of Howard Brockway as one of the professors of harmony, composition and piano. He is considered one of the most gifted of the rising native American composers, his works showing striking individuality and power, as well as admirable mastery of his art. In 1890 Mr. Brockway went to Berlin to study, and in 1895 gave a concert of his own compositions that won for him immediate recognition from distinguished musicians and critics. Subsequently he settled in New York. His compositions have been frequently heard in public, notably at the performance by the Boston Symphony of his "Sylvan Suite," by the Seidl Orchestra of his "Ballade," and of his many smaller works at numerous recitals. His last large work, a "Ballade" for unaccompanied eight-part chorus, will be brought out next season by the Musical Art Society of New York. Among other leading professors at the Peabody are Otis B. Bole, W. E. Heintzmann, J. C. Van Hulsteyn, Ernest Hutcheson, Pietro Minetti, Emanuel Wad, J. E. Barkworth and Alfred Goodwin. The Conservatory confers a number of scholarships each year, and its awards consist of diplomas and teachers' certificates given to those who successfully complete its courses. It was formerly the rule of the Conservatory to accept only such pupils as had already reached a certain stage of advancement, but it was found that the material offered was in most cases so ill-prepared as to require considerable additional time for the eradication of acquired faults. A preparatory department was created in order to obviate this difficulty, and pupils are now accepted from the beginning and taken through all the higher grades until fitted to be capable teachers or accomplished concert performers. Pupils are, however, received in any grade for which they are qualified, and promoted when sufficient progress is shown to warrant it. Students of the Conservatory are entitled to the following, free of charge: Classes in Fundamental Training, Ear Training, Musical History, Chamber of Music and Ensemble playing, and admission to all lectures on music, recitals and numerous concerts of the regular Peabody course. The past season was the most successful in the history of the Conservatory, not only in the remarkable numerical growth in membership, but in the improvement in artistic achievement in every department. Many of the pupils studied several different branches, thus making the actual class membership represent an even larger number than the roll of individual membership. Number of pupils enrolled, 880; increase over the previous season, 150; number of students' recitals, 44; number of pupils participating in students' recitals, 200; number of professional recitals, 40. Schumann, in his famous "Rules for Young Musicians," thus answers the question, "How does one become musical?" "You will become so, not by shutting yourself up all day, like a hermit, practicing mechanical studies, but by living, many-sided musical intercourse." It is just this "many-sided musical intercourse" that is afforded by conservatory life, in which is created an atmosphere of artistic interest and enthusiasm that is an indispensable factor in the development of musical talent. The opportunity of hearing the master compositions of different epochs presented at the numerous recitals by the greatest artists of the day, the advantage of playing with and before others in the classes, ensemble rehearsals and students' recitals, the lectures, the pleasant musical association, the class spirit—all these tend to stimulate a healthy interest and to establish a high ideal of excellence by means not obtainable outside of a conservatory.

FINANCIAL NEWS.

The Manufacturers' Record invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

Review of the Baltimore Market.

Office of Manufacturers' Record,
Baltimore, Md., August 19, 1903.

As was to have been expected the Baltimore stock market during the past week witnessed a rise in the common and preferred stocks of the Seaboard Air Line consequent upon the recent deal, but there were also other advances which were not anticipated, these rises occurring in United Railways incomes and in G. B. & S. Brewing bonds. There was a better feeling concerning Cotton Duck on account of the recent financial statement issued by the company. Bank and trust stocks were steady and investment securities displayed no particular change of market value.

In the trading United Railways common advanced from 10½ to 11; the incomes from 62 to 65, declining fractionally, while the 4s were steady at 92½; United Light & Power preferred was dull without transactions, but the 4½s sold at 84; Consolidated Gas 6s sold at 108½ and 109. The advance in Seaboard during the week was from 21¼ to 23½, with a fractional reaction to 22¾, and the gain in the preferred, after a drop from 35¾ to 35 was up to 37, from which point there was a drop to 36½. The 4 per cent. bonds declined from 79½ to 78, and rose again to 79, and then going back to 78. The 5 per cents sold at 101 and 101½; Cotton Duck was traded in at 1; G. B. & S. Brewing at 10; the incomes at 30 to 34, and the 1sts from 47 to 50.

Continental Trust sold at 185 and Union Trust at 62½; National Bank of Baltimore at 116; Farmers & Merchants' at 68, and Western Bank at 39.

Other securities traded in were as follows: Atlantic Coast Line common, at 113, 119, and thence down to 113½, recovering to 114; Atlantic Coast Line 1st 4s, at 93 to 93½, and then to 92½; do. new 4s at 84; Northern Central common, 100; Carolina Central 4s, 94; Georgia & Alabama Consolidated 5s, 105½ to 106¼; do. terminal 5s, 104½; Georgia Southern & Florida 5s, 111; Knoxville Traction, 101; International Mercantile Marine common, 5; South Bound 5s, 108; Baltimore & Ohio common, 82½; Brunswick & Western 4s, 90; Wilmington, Columbia & Augusta 6s, 111; United States 3s, coupon, 107½; Northern Central 6s, 1904, 102½; Baltimore City Passenger 4½s, 102½; Baltimore City 3½s, 1930, 109 and 109½; Merchants & Miners' Transportation Co. common, 165; Newport News 5s, 100; Virginia Midland 5s, 110; Charleston & Western North Carolina 5s, 109; Atlanta & Charlotte 1sts, 107½; Georgia, Carolina & Northern 5s, 107; Virginia Century, 89; Northern Central 4s, 1910, 102½.

SECURITIES AT BALTIMORE.

Last Quotations for the Week Ended
August 19, 1903.

Railroad Stocks.	Par.	Bid.	Asked.
Georgia Sou. & Fla. 1st Pref.	100	95	98
Georgia Sou. & Fla. 2d Pref.	100	67	70
United Railways & Elec. Co.	50	11	11½
Seaboard Railway Common	100	22½	23
Seaboard Railway Preferred	100	36½	36¾
Atlantic Coast Line	100	115	120
Bank Stocks.			
Citizens' National Bank	10	28	31
Drovers & Mech. Nat. Bank	100	300	...
Farmers & Mer. Nat. Bank	40	67	...
German Bank	100	107	...
Manufacturers' National Bk.	100	102	...
Merchants' National Bank	100	108	...
National Bank of Baltimore	100	115½	...
National Exchange Bank	100	120	...
National Howard Bank	10	11½	...
National Mechanics' Bank	10	30	...
National Union Bank of Md.	100	117	...

Second National Bank	100	180	...
Western National Bank	20	38	...
Trust, Fidelity and Casualty Stocks.			
Continental Trust	100	180	186
Fidelity & Deposit	50	150	160
International Trust	100	119½	125
Maryland Casualty	25	45	48
Maryland Trust & Deposit	100	148	160
Mercantile Trust & Deposit	50	148	160
Union Trust	100	62½	...
E. S. Fidelity & Guaranty	100	130	140

Miscellaneous Stocks.			
G. B. & S. Brewing Co.	100	...	40
United Elec. L. & P. Pref.	50	...	40
Cotton Duck Voting Trust	100	14	...
Consolidated Coal	100	68½	80
George's Creek Coal	100	85	...
Consolidated Gas	100	64½	66

Railroad Bonds.			
Atlanta & Charlotte 1st 7s, 1907	107½	...	...
Char. Col. & Aug. 1st 5s, 1910	114	116½	...
Char. Col. & Aug. 2d 7s, 1910	114	116	...
Columbia & Greenville 1st 6s, 1916	114½	...	...
Georgia, Car. & North. 1st 5s, 1929	106¾	107	...
Georgia South. & Fla. 1st 5s, 1945	110½	112½	...
Raleigh & Augusta 1st 6s, 1926	114½	119	...
Seaboard & Roanoke 5s, 1926	115	...	...
Southern Railway Con. 5s, 1944	115	...	...
Virginia Midland 5th 5s, 1926	109	110	...
West. North Carolina Con. 6s, 1914	113	114	...
West Virginia Central 1st 6s, 1911	109	111½	...
Wilmington, Col. & Aug. 6s, 1910	109	111½	...
Wilmington & Wel. Gold 5s, 1935	115	117½	...
Charleston City Railway 5s, 1923	103½	...	...
Knoxville Traction 1st 5s, 1928	...	101	...
Newport News & Old Pt. 5s, 1928	96	...	...
Norfolk Street Railway 5s, 1944	...	110	...
United Railways 1st 4s, 1949	92½	92½	...
United Railways Inc. 4s, 1949	64	65	...
Seaboard 4s	78	78½	...
Seaboard 10-year 5s	101½	102	...
Georgia & Alabama Con. 5s	106½	...	...

Miscellaneous Bonds.			
Mt. V. & Woodby Cot. Duck 5s	66	70	...
Mt. V. & Woodby Cot. Duck Inc.	12½	15	...
G. B. & S. Brewing 1st 3-4s	50	50½	...
G. B. & S. Brewing 2d Incomes	33	33½	...
United Elec. Light & Power 4½s	...	84	...
Consolidated Gas 6s, 1910	108½	...	...
Consolidated Gas 5s, 1939	109½	111	...

SOUTHERN COTTON MILL STOCKS

Quotations Furnished by Hugh MacRae & Co., Wilmington, N. C., for
Week Ending August 18.

	Bid.	Asked.
Abbeville Cotton Mills (S. C.)	77½	79
Aiken Mfg. Co. (S. C.)	50	50
Anderson Cotton Mills (S. C.)	121	125
Augusta Factory (Ga.)	63	...
Avondale Mills (Ala.)	90	95
Belt Mills (S. C.)	100	103
Bibb Mfg. Co. (Ga.)	108½	...
Brandon Mills (S. C.)	98½	...
Buffalo Cotton Mills (S. C.) Pfd.	100	100
Chiquola Mfg. Co. (S. C.)	95	...
Clinton Cotton Mills (S. C.)	118	...
Columbia Mfg. Co. (Ga.)	92	99
Courtney Mfg. Co. (S. C.)	125	...
Dallas Mfg. Co. (Ala.)	90	...
Darlington Mfg. Co. (S. C.)	97	...
Eagle & Phenix Mills (Ga.)	100	...
Easley Cotton Mills (S. C.)	102	...
Enoree Mfg. Co. (S. C.)	85	...
Enterprise Mfg. Co. (Ga.)	80	...
Exposition Cotton Mills (Ga.)	150	...
Gaffney Mfg. Co. (S. C.)	96	...
Granby Cot. Mills (S. C.) 1st Pfd.	97½	...
Greenville Mfg. Co. (S. C.)	100	100
Greenwood Cotton Mills (S. C.)	102	...
Grendel Mills (S. C.)	100	103½
Henrietta Mills (N. C.)	200	...
King, John P. Mfg. Co. (S. C.)	80	88
Lancaster Cotton Mills (S. C.)	100	110
Lancaster Cotton Mills (S. C.) Pfd.	100	...
Langley Mfg. Co. (S. C.)	90	...
Laurens Cotton Mills (S. C.)	170	...
Lockhart Mills (S. C.)	95	100
Louise Mills (N. C.)	85	95
Louise Mills (N. C.) Pfd.	100	...
Manchester Cotton Mills (S. C.)	30	...
Marlboro Cotton Mills (S. C.)	107	110
Mayo Mills (N. C.)	170	...
Mills Mfg. Co. (S. C.)	99	...
Mills Mfg. Co. (S. C.) Pfd.	103	...
Newberry Cotton Mills (S. C.)	120	...
Norris Cotton Mills (S. C.)	107	109½
Olympia Cotton Mills (S. C.) Pfd.	98	...
Odyell Mfg. Co. (N. C.)	98	102
Orangeburg Mfg. Co. (S. C.) Pfd.	102	...
Orr Cotton Mills (S. C.)	100	102
Pacolet Mfg. Co. (S. C.)	194	195
Peizer Mfg. Co. (S. C.)	168½	...
Piedmont Mfg. Co. (S. C.)	173	180
Poe, F. W. Mfg. Co. (S. C.)	141	141
Roanoke Mills (N. C.)	98	102
Saxon Mills (S. C.)	100	104
Sibley Mfg. Co. (Ga.)	65	...
Southern Cotton Mills (N. C.)	95	...
Spartan Mills (S. C.)	133	...
Trion Mfg. Co. (Ga.)	125	150
Tucapau Mills (S. C.)	142	...
Union Cotton Mills (S. C.)	152	...
Union Cotton Mills (S. C.) Pfd.	102½	102½
Victor Mfg. Co. (S. C.)	129	133
Warren Mfg. Co. (S. C.)	100	101½
Warren Mfg. Co. (S. C.) Pfd.	106	110½
Washington Mills (Va.)	10	20
Washington Mills (Va.) Pfd.	101	...
Wilmington Cot. Mills (N. C.) Pfd.	109	...
Wiscasset Mills (N. C.)	118	...
Woodruff Cotton Mills (S. C.)	95	98½

The Bowen Banking Co. of Fitzgerald, Ga., has been granted an amendment to its charter permitting a change of name to the Exchange Bank of Fitzgerald and an increase of capital stock to \$50,000.

Georgia's Property Values.

Digests of returns of taxable properties in all but three counties of the State show an estimated increase in taxable values during the year of \$24,651,138, of which \$2,500,000 are in railroad property, and an estimated increase from the franchise tax law of \$15,000,000.

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Irrigation in Texas.

The census bureau reports that of 226,205 acres of land under irrigation in Texas, for which 1075 miles of canal have been constructed at a cost of more than \$5,000,000, 170,396 acres are in rice plantations. Flowing wells are being brought into use in the rice belt, and last year 650 wells were operated to irrigate 20,219 acres.

The Fort Worth Cotton Oil Co. of Fort Worth, Texas, has increased its capital stock from \$75,000 to \$100,000.

(For Additional Financial News, See Pages 32 and 33.)

Hambleton & Co.
BANKERS and BROKERS,
Members New York and Baltimore Stock
Exchanges.
17 S. Calvert St., BALTIMORE.
High-grade Investment Bonds, Municipal, Rail-
way, Industrial.
Letters of Credit Available Everywhere.

**CONDENSED STATEMENT OF THE
First National Bank of Richmond, Va.**
JUNE 9, 1908.

RESOURCES.	
Loans and Discounts	\$9,581,783.73
U. S. Bonds at par	612,500.00
Overdrafts	40.75
Other Stocks and Bonds	418,607.78
Banking House and other Real Estate	60,742.73
Cash and Due from Banks	903,896.70
	\$5,542,521.69
LIABILITIES.	
Capital	\$600,000.00
Surplus and Profits (net)	552,346.66
Reserved for Interest	7,688.72
Circulation	595,500.00
Deposits	3,380,622.11
U. S. and Va. Bond Account	408,500.00
	\$5,542,521.69

Calvin N. McAdoo

Banker and Broker,
GREENSBORO, N. C.

MEMBER

New York Cotton Exchange.
New Orleans Cotton Exchange.
Consolidated Stock Exchange.
Private Wires to all Exchanges.
Southern Securities a Specialty.

Jacob Phinizy, Prest. Chas. G. Goodrich, Cash.
Hamilton H. Hickman, Vice-Prest.

Georgia Railroad Bank,

AUGUSTA, PA.

Capital, \$200,000.00 Undivided Profits, \$201,585.63
Commenced Business December 31, 1892.

Members Baltimore Stock Exchange.

J. WM. MIDDENDORF & CO.
BANKERS AND BROKERS,
Continental Trust Bldg. Baltimore, Md.

Stocks and Bonds Bought and Sold on Commission. Special attention given to Municipal
and other Investment Loans. Dealers in Foreign Exchange. Drafts on Europe and
Letters of Credit furnished. Private Wire to New York and Richmond.

Merchants' & Farmers' Nat. Bank
CHARLOTTE, N. C.
Capital, \$200,000. Surplus and Profits, \$75,000.
Prompt and intelligent attention to all business
intrusted to us. Correspondence invited.
Dr. J. H. McAden, Pres. Geo. E. Wilson, V. Pres.
C. N. Evans, Cash. W. C. Wilkinson, Asst. Cash.
N. Y. Correspondent:
SEABOARD NATIONAL BANK.

Spencer Trask & Co.
BANKERS

William & Pine Sts., New York
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BUSINESS PROSPECTS.

Opinions of Leading Bankers as Reported from All Parts of the South.

Fisk & Robinson of New York recently addressed inquiries to the officials of a number of the leading banks and trust companies throughout the country relative to trade and crop conditions and prospects. Most of the replies have been decidedly favorable, especially as to business conditions. Among the answers received are the following:

The president of a national bank in Louisville: "The mills of this city are as busy as ever, and the expression from all of the principal mill-owners with whom I come in contact is that they are as full of orders as ever, and will need as much money for their business as ever. There is no let-up in business. I do not fear any let-down in business in this city and its territory this coming winter, and I want to say with a clear note that I never saw business, outside of stocks and securities, in better condition in many years."

A bank president of Norfolk, Va.: "Our truckers (shippers of produce) have had a most successful season, which has brought into our community a great deal of money. We have a strong demand for money, but of a wholesome and legitimate character, from borrowers who have resources behind them to meet their liabilities. The cotton crop promises to be a fair one, with the prospect of good prices, which ought to cause it to move promptly and put in circulation throughout the South a good supply of money."

The president of a national bank of Atlanta, Ga.: "The crop prospect is promising, though cotton will be some two to four weeks late. The acreage is considerably increased over last year. We expect good prices for cotton, and when realized we are satisfied that money will be easier in this section of the country than ever before, as farmers do not owe very much money. Taking it all in all, we see nothing to be frightened about relative to the future, so far as crops are concerned, or credits in this section of the United States. Legitimate, conservative business prevails here, with very few exceptions. The banks loan money to merchants and others upon approved notes and collateral. We are not affected at all by the depreciation of stocks in New York, as there are very few stocks traded in here, and not very many held only for local character."

The president of a bank in New Orleans: "In reply would say that business in this city and section is good, and prospects are favorable."

The vice-president of a trust company in New Orleans: "At this time the crop conditions are very encouraging; in fact, more so than for several years past, our rice and cotton being especially good, and sugar-cane fair. New Orleans and this section of the South are improving steadily. Financial conditions are fairly easy for this time of the year. The merchants report sales and collections better than usual, and, in fact, if the crop conditions continue as they are to maturity, we cannot but have prosperous times."

The president of a railroad in the South: "We consider the situation strong and satisfactory. Crops in the Southwest are good. Those that have been harvested, such as wheat and oats, show more than an average yield. The corn crop in the Southwest is made, and is far above the average. Cotton got a bad start, and as a consequence is three weeks late, but the plant is strong and well rooted. Weather conditions are nearly perfect, and have been so for the past month. With an average crop and good prices in prospect,

farmers feel encouraged. I consider the lumber business in a very strong position. The mills are well supplied with orders and running to their full capacity."

The president of a bank in Austin, Texas: "Leaving out of account the manufacturing interests of this section of the State, which are small, but prosperous, our agricultural prospects probably were never better. We have had two years of drouth and very short crops, but all of our crops for the present year, except cotton, are now made, and they are abundant. The people of this section have never had larger crops of corn, oats, cane, hay, vegetables and fruits. There is no mistake about this. Our cotton crop prospect is deemed excellent."

Gulf & Ship Island.

Messrs. Fisk & Robinson of New York have issued the Gulf & Ship Island Railroad Co.'s comparative statement of earnings for the year ended June 30, 1903: Average miles operated 251, no increase; gross earnings \$1,707,143, increase \$332,459; operating expenses and taxes \$1,073,944, increase \$133,430; net earnings \$633,199, increase \$199,029; total net income \$636,917, increase \$202,747; fixed charges \$194,364, increase \$19,053; surplus \$442,553, increase \$183,694. In 1901 the surplus was only \$4547. The figures for 1903 are subject to slight revision on final auditing.

New Corporations.

It is reported that a new bank will be organized at Union City, Tenn.

It is rumored that John H. Frye of Birmingham, Ala., will organize a national bank to be capitalized at \$100,000.

The Farmers' Bank of Autwine, Kay county, O. T., has been authorized to begin business with \$10,000 capital.

James Sampson, W. P. Allison, J. T. Spencer and others of De Kalb, Mo., have incorporated the De Kalb State Bank, capital \$10,000.

The United States Finance Co., capital \$100,000, has been incorporated at St. Louis by William P. Cole, E. B. Brown, W. J. Riggs.

A new bank to have capital stock of \$50,000 will be organized at Sturgeon, Mo. James M. Proctor will probably be president, and Manley Board, cashier.

First National Bank of Hughes Springs, Texas, has been authorized to begin business with a capital of \$30,000. C. H. Morris is president, and J. M. Mitchell, cashier.

Messrs. H. H. D'Antignae, Jr., W. N. Fleetwood, Jr., and Lewis A. Wood have incorporated the Augusta Stock Exchange of Augusta, Ga., with authorized capital of \$50,000.

Bank of Springfield, Springfield, S. C., has been organized, with L. M. Minus, president; John B. McBean, vice-president, and J. B. Smith, cashier. The capital stock is \$20,000.

The People's Bank has been organized at Ocilla, Ga., with \$25,000 capital and the following officers: Warren Paulk, president; J. E. Howell, vice-president, and R. H. Johnson, cashier.

The National Bank of Commerce of Walters, O. T., capital \$25,000, has been approved. The organizers are W. H. Alder, George M. Wilson, J. W. Ross, A. B. Snow, S. R. Royce and F. M. English.

The First State Bank of Putnam, O. T., capital \$10,000, has been chartered. The incorporators are O. B. Kee, Anton Huber and Charles E. Shaw of Weatherford and J. H. Morrison of Independence, O. T.

The Empire National Bank of Clarksburg, W. Va., capital \$200,000, has been approved. The organizers are V. L. Highland, Clarksburg, W. Va.; S. S. Faris, S.

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The First National Bank of Grove, I. T., capital \$25,000, has been approved. The organizers are W. M. Charlesworth, Grove, I. T.; T. J. Rogers, Joseph McCann, T. M. Ward, J. R. Hastings and Samuel J. Salyer.

The Salem State Bank of Salem, Ark., capital \$10,000, has been incorporated, with the following officers: R. A. Youngblood, president; B. H. Youngblood, vice-president; Fay Youngblood, secretary; A. F. Basham, treasurer.

The First National Bank of Snyder, O. T., has been approved; capital \$25,000. The organizers are Robert E. Huff, Wichita Falls, Texas; W. C. Heath, F. M. Frey, W. C. Stevens, Geo. M. Paschal, F. M. English and others.

The High Point Fire Insurance Co. of High Point, N. C., has been authorized to begin business. F. M. Pickett is president; J. P. Redding, vice-president; C. M. Hauser, treasurer, and Joseph D. Smith, secretary. Capital stock is \$50,000.

It is reported that the Savings and Trust Bank of Rocky Mount, N. C., will be organized, with capital of \$10,000, by officers of the Bank of Rocky Mount and other banks, and that the new bank will conduct the Rocky Mount Homestead and Loan Association.

The Pearsall National Bank, capital \$50,000, has been organized at Pearsall, Texas, with officers as follows: C. H. Beever, president; T. C. Frost, vice-president; J. M. Rigan, cashier; C. H. Beever, T. C. Frost, U. S. Scovill, R. Redditt and J. E. Berry, directors.

The Bank of Quitman has been incorporated at Quitman, Ark., with \$25,000 authorized capital, \$10,000 subscribed. The incorporators are J. M. Jenkins, S. D. Jenkins, W. T. Hammock, J. J. Menuse, R. L. Kane, C. W. Martin, Joel E. Wynne, G. P. Davus and Robert Smith.

The application to organize the First National Bank of Alvin, Texas, has been approved by the Comptroller of the Currency. Sealy Hitchings of Galveston, Texas; W. B. Wallis, P. G. Pauls, D. B. Henderson and E. R. Girardeau of Alvin are the incorporators. Capital will be \$25,000.

The People's Bank of Bishopville, S. C., has been organized, with capital stock of \$25,000. W. C. Rogers is president; T. E. Davis, vice-president; J. C. Rogers, cashier. Messrs. Rogers and Davis, J. B. McLaughlin, J. P. Kilgore, R. H. Pittman, J. B. Lang, A. C. Baskin, J. H. Ellen and M. B. McCutchen are the directors.

The Farmers' Bank of Clarksburg, W. Va., now being organized with Harvey W. Harmer as president, and E. Thad Post, treasurer, has received subscriptions to its entire capital stock of \$100,000. The incorporators, it is stated, will be Harvey W. Harmer, Dr. J. B. Smith, William L. Cole, E. Thad Post and Ransell Johnson.

Bank of Central, Central, S. C., recently noted to be organized with capital of \$25,000, has elected J. N. Morgan, president; F. B. Morgan, cashier, and directors, Messrs. T. N. Norris, Catechee, S. C.; J. McD. Bruce, Pickens, S. C.; W. L. Gassoway, Greenville, S. C.; H. C. Shirley, Liberty, S. C.; H. B. Bowen, Norris, S. C.; B. J. Johnston, C. B. Smith, J. M. Morgan and F. B. Morgan of Central.

The Bank of Cape Fear has been chartered at Lillington, N. C., authorized capital \$50,000, with \$5000 subscribed. Gen. R. M. Nelson, president of the First National Bank of Sanford, was elected president; E. T. Young, president of Merchants and Farmers' Bank of Dunn, N. C., vice-president; T. C. Young of Dunn, N. C., cashier. Among

the stockholders are S. A. Volman, A. P. McDhenor, J. E. Carines, W. W. Allen.

The following national banks have been organized: The Opelousas National Bank, Opelousas, La.; capital \$50,000; E. B. Dubuissou, president; A. Leon Dupre, cashier. The Planters' National Bank of Whitewright, Texas; capital \$100,000; J. W. Ashley, cashier. The Blackwell National Bank, Blackwell, O. T.; capital \$30,000; J. M. Skelton, president; J. W. Morse, cashier; conversion of the Bank of Blackwell. The First National Bank of Hughes Springs, Texas; capital \$25,000; C. H. Morris, president; J. M. Mitchell, cashier. The Laurel National Bank, Laurel, Miss.; capital \$100,000; Edward D. Peirce, president; C. M. McDonald, cashier.

The Bank of Orleans is reported as being in process of organization at New Orleans, La., with \$100,000 capital, to begin business January 1 next. Officers are reported to have been chosen as follows: President, Peter Hellwege; vice-president, Eugene H. Roberts, now cashier of the bank at Bay St. Louis; cashier, L. Leon Villere; assistant cashier, Joseph Granbury of Pass Christian; directors, Alfred Le Blanc, agent of the Harrison Lane; C. A. Pardue, agent of the Southern and the Pacific express companies; Jules Mazaret, cotton broker; Charles Marshall, superintendent of the Louisville & Nashville Railroad; Cartwright Eustis, manager of the Germania Life Insurance Co.; Charles Dittman, coffee commission merchant; H. S. Weston, president H. Weston Lumber Co.; Eugene H. Roberts, cashier of the Hancock County Bank of Bay St. Louis, Pass Christian, and Pearlinton; attorney, F. N. Butler. The bank will be situated at 810 Gravier street.

New Securities.

Meridian, Miss.—The board of aldermen and the council have voted to issue \$20,000 of bonds for a public park.

Beeville, Texas.—The Commissioners' Court of Bee county has ordered an election on September 17 to vote on \$6500 of bridge bonds.

Clarksville, Ga.—Blue Ridge Orchard & Nursery Co. will issue \$20,000 first mortgage 6 per cent. gold bonds for improvement purposes. J. H. Hicks, care of the company, can be addressed.

Victoria, Texas.—A meeting of the New York, Texas & Mexican Railway (Southern Pacific system) is to be held in Victoria October 27 to vote on the question of issuing bonds not to exceed \$20,000 per mile of branch lines built and to be built.

Financial Notes.

Elba, Ala.—This city will dispose of \$15,000 worth of water-works bonds. J. F. Sanders has the sale of bonds in charge.

The State Board of Education, Austin, Texas, has purchased \$500,000 of Boxar county 4 per cent. road and bridge bonds, securing them at par.

Niagara Falls Excursions—Low-Rate Vacation Trips via Pennsylvania Railroad.

The Pennsylvania Railroad Co. has selected the following dates for its popular 10-day excursions to Niagara Falls from Baltimore: July 24, August 7 and 21, September 4 and 18, and October 2 and 16. On these dates the special train will leave Baltimore 9.05 A. M., York 10.45 A. M., arriving Niagara Falls at 9.45 P. M.

Excursion tickets, good for return passage on any regular train, exclusive of limited express trains, within ten days, will be sold at \$10 from Baltimore, \$9.35 from York, \$10 from Littlestown, and at proportionate rates from principal points. A stop-over will be allowed at Buffalo within limit of ticket returning.

The special trains of Pullman parlor cars and day coaches will be run with each excursion running through to Niagara Falls. An extra charge will be made for parlor-car seats.

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Pages 3, 5, 7, 9, 11, 13, 15
and 17.

Ads. marked * appear every other week. Ads. marked † appear in first issue of the month. Ads. marked ‡ not in this issue.

Abbott, F. C., & Co.	33	Brinkley Business Men's League	55	Downie Pump Co.	56	International Sprinkler Co.	31	Nicholson File Co.	30	Smith, S. Morgan, Co.	57
Abrasive Material Co.	50	Brobert, Fendig & Co.	36	Drake Standard Machine Works	5	International Trust Co.	1	Niles-Bement-Pond Co.	2	Smith, J. Summerfield, & Co.	57
Acme Road Machinery Co.	45	Broderick & Bascom Rope Co.	47	Draper Co.	53	Ironside Co., The.	19	Niver, W. K. Coal Co.	21	Smith, W. R.	41
Adams, J. M.	2	Brown, A. & F., Co.	26	Driscoll, John T., & Co.	*	Jackson Mfg. Co.	47	Nordyke & Marmon Co.	19	Smith, W. R.	41
Adams Laundry Machinery Co.	2	Brown & Zortman Mch. Co.	38	Duff, C.	25	Jeffrey Mfg. Co.	12	Norfolk & Western Railway.	59	Smith, W. R.	41
Adams & Schwab.	6	Brown-Cochran Co., The.	22	Dunn, Wm. J.	37	Jenks, W. H.	62	Norman & Evans	24	Smith, W. R.	41
Atchison, Robt., Perf. Met. Co.	45	Brown Corlies Engine Co.	1	Dunning, W. D.	35	Jenkins Bros.	60	Norrish, Burnham & Co., Inc.	24	Smith, W. R.	41
Alabama Con. Coal & Iron Co.	21	Brownell, The, & Co.	15	Durable Wire Rope Co.	†	Johnson, Charles F.	42	North American Metal Co.	26	Smith, W. R.	41
Alabama Frog & Switch Co.	42	Bryan, D. D., Sec'y.	58	Dyer, D. H., & Son.	*	Johnson, John, & Co.	42	North Carolina Cotton Oil Co.	38	Smith, W. R.	41
Alber & Bryne.	7	Buchanan-Foster Co.	49	Eastern Granite Roofing Co.	49	Johnston, J. M.	35	Norton Electrical Mfg. Co.	6	Smith, W. R.	41
Alberger Condenser Co.	56	Buckeye Iron & Brass Works.	53	Eclipse Machine Co.	28	Joseph, Isaac, Iron Co.	42	Norton Emery Wheel Co.	59	Smith, W. R.	41
Aldrich, F. B.	29	Buckingham, Paulson & Co.	38	Edson Mfg. Co.	*	Kaiser, A. V., & Co.	37	Nye & Treck	63	Spelid, J. G.	16
Alexander Bros.	24	Buer, P. W.	26	Effort, J. B.	36	Kaiser Mfg. Co.	37	Ober Mfg. Co.	51	Spencer & Hall.	7
Alexander, S. B., Jr., Co.	61	Buffalo Wire Works Co.	28	Electrical Material Co.	61	Kaiser Mfg. Co.	37	Obermayer, R. Co.	51	Sprague Canning Mch. Co.	25
Allington & Curtis Mfg. Co.	62	Burrows Co., E. T.	23	Electric Supply Co.	40	Keasay Pulley Co.	19	Ohio Fire Brick Co.	29	Spray Woolen Mills.	41
Allis-Chalmers Co.	14	Burt Mfg. Co.	2	Elyria Engine Co.	17	Keeler, E., Co.	19	Ohio Injector Co.	21	Sprout, Walron & Co.	29
Allison, W. D.	59	Bushnell, G. H., Press Co.	53	Empire Chain Company	27	Keith, W. B.	19	Old Dominion Land Co.	62	Stachhouse, W. F.	28
Alpha Photo-Engraving Co.	29	Byers, John F., Machine Co.	20	Engineering Co. of America.	27	Kelley Island Line & Transport	19	Onida Steel Pulley Co.	26	Standard Caster & Wheel Co.	28
American	53	Caine & Pitt.	42	Erie Pump & Engine Co.	57	Kelly & Taneyhill Co.	56	Osgood Scale Co.	62	Standard Electric Co., Ltd.	36
American Air Compressor Wks.	15	Caldwell, H. W., & Son Co.	4	Eureka Fire Hose Co.	24	Kelly-Springfield Road Roller Co.	46	Otto Elevator Co.	1	Standard Paint Co.	50
American Blower Co.	15	Caldwell, W. E., Co.	23	Eureka Supply Co.	25	Kennedy, L. E., & Co.	38	Palmer, Harmon S., Hollow Con-	2	Standard Scale & Sup. Co., Ltd.	2
American Cement Co.	8	Cameron, A. S., S. Pump Wks.	56	Ewing-Merkle Electric Co.	61	Kennedy, Walter.	38	crete Building Block Co.	2	Standish, A. Estate.	2
American Cotton Oil Co.	54	Cameron & Barkley Co.	37	Exchange Bank, Macon, Ga.	31	Kilbourne & Jacobs Mfg. Co.	2	Palmetto Bank & Trust Co.	2	Star Brass Works.	40
American Elec. Sup. & Mfg. Co.	51	Campbell & Clute Machine Co.	†	Fairmount Machine Co.	52	Kilburn, Lincoln & Co.	62	Park Mfg. Co.	11	Steel Rail Supply Co.	41
American Excelsior & Mch. Co.	51	Capital Gas Engine Co.	1	Farquhar, A. B., Co., Ltd.	43	Kilburn Locomotive & Mach. Wks.	62	Parkhurst Bros. & Co.	10	Stetson Lumber Co.	55
American Frog & Switch Co.	13	Carbondale Chemical Co.	22	Fay, J. A., & Egan Co.	51	Kinkadee & Liggett Co.	10	Parkinson, Charles, & Co.	10	Stevens, H., Sons Co.	62
American Locomotive Co.	13	Carborundum Co.	50	Federal Mfg. Co.	13	Kirby Lumber Co.	65	Pawling & Harnischfeger	49	Stewart, John A. Electric Co.	35
American Machine Co. of Wil-	10	Cardwell Machine Co.	53	Fernholtz Brick Mch. Co.	45	Knox, George & Co.	7	Peacock's Iron Works.	44	Stief, Charles M.	60
ington, Del.	66	Carey, George H.	42	Fidelity & Deposit Co. of Md.	37	Kohn, J. W., & Co.	40	Pearson, R. P.	36	Stirling Co., E. B., & Son.	45
American Mfg. Co.	31	Carey, Philip, Mfg. Co.	20	Fidelity Machine & Metal Co.	37	Koppel, Arthur.	44	Peck-Hammond Co.	36	Stirling Co., E. B., & Son.	45
American Pulley Co.	28	Carlin Machinery & Supply Co.	38	Flint & Walling Mfg. Co.	23	Lafourche Progressive Union.	58	Peckless Rubber Mfg. Co.	24	Stirling Co., E. B., & Son.	45
American Railway Supply Co.	4	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Penberthy Interior Co.	62	Stirling Co., E. B., & Son.	45
American Roofing Co.	9	Carroll, George.	30	Flint & Walling Mfg. Co.	23	Lafourche Progressive Union.	58	Penn Metal Ceiling & Roof. Co.	48	Stirling Co., E. B., & Son.	45
American Ship Windlass Co.	2	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Pennsylvania Rubber Co.	24	Stirling Co., E. B., & Son.	45
American Spiral Pipe Works.	58	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Perfection Mattress Co.	24	Stirling Co., E. B., & Son.	45
American Steam Gauge & Valve	20	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Peters Cartridge Co.	1	Stirling Co., E. B., & Son.	45
Mfg. Co.	20	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Petroleum Iron Works Co.	21	Stirling Co., E. B., & Son.	45
American Steam Pump Co.	56	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Phoenix Iron Works Co.	18	Stirling Co., E. B., & Son.	45
American Supply Co.	56	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Phos. Bronze Smelting Co., Ltd.	60	Stirling Co., E. B., & Son.	45
American Tin Plate Co.	48	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Piedmont Electric Co.	60	Stirling Co., E. B., & Son.	45
American Type Founders Co.	56	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Pike Mfg. Co.	62	Stirling Co., E. B., & Son.	45
Andrews & Johnson Co.	20	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Pittsburg Meter Co.	35	Stirling Co., E. B., & Son.	45
Andrews, Perry, & Bro.	56	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Pittsburg Reduction Co.	35	Stirling Co., E. B., & Son.	45
Apex Equipment Co.	41	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Pittsburg Writing Machine Co.	47	Stirling Co., E. B., & Son.	45
Appraisal & Audit Co. of Amer.	†	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Pneumatic Engineering Co.	67	Stirling Co., E. B., & Son.	45
Artic Machine Co.	49	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	P. O. Box 351.	36	Stirling Co., E. B., & Son.	45
Armstrong, R. S., & Bro.	48	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	P. O. Box 798.	36	Stirling Co., E. B., & Son.	45
Asphalt Ready Roofing Co.	50	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Point Pleasant Development Co.	36	Stirling Co., E. B., & Son.	45
Athens Chamber of Commerce.	50	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Polack, Charles, & Bro., Co.	60	Stirling Co., E. B., & Son.	45
Atherton Machine Co., A. T.	†	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Polk, A. J., & Son.	30	Stirling Co., E. B., & Son.	45
Atkins, E. C., & Co.	†	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Pomona Terra Cotta Co.	30	Stirling Co., E. B., & Son.	45
Atlas Engine Works.	17	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Porter, H. K. Co.	32	Stirling Co., E. B., & Son.	45
Audit Co. of New York.	35	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Poulter & Co.	42	Stirling Co., E. B., & Son.	45
Aultman Co., The.	19	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Powley Valve Mfg. Co.	38	Stirling Co., E. B., & Son.	45
Austin Mfg. Co.	44	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Powell Co., Wm. Thos.	38	Stirling Co., E. B., & Son.	45
Babcock & Wilcox Co.	19	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Powhatan Clay Mfg. Co.	29	Stirling Co., E. B., & Son.	45
Bacon Air Lift Co.	56	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Pray, C. A. M., & Co.	6	Stirling Co., E. B., & Son.	45
Badger, E. B., & Sons Co.	1	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Pratt & Whitney Co.	1	Stirling Co., E. B., & Son.	45
Badger Fire Extinguisher Co.	58	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Pratt, N. F., Laboratory.	6	Stirling Co., E. B., & Son.	45
Badger, Adamson & Co.	28	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Pre & Hend.	5	Stirling Co., E. B., & Son.	45
Baldwin Locomotive Works.	13	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Pulmoner Steam Pump Co.	57	Stirling Co., E. B., & Son.	45
Bald Engine Co.	17	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Putnam, Joseph R.	36	Stirling Co., E. B., & Son.	45
Ball & Wood Co.	31	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Queen City Printing Ink Co.	54	Stirling Co., E. B., & Son.	45
Baltimore Belting Co.	24	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Railways & Light Co. of America.	32	Stirling Co., E. B., & Son.	45
Baltimore Engine Co.	17	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Ramsay, John E., & Co.	45	Stirling Co., E. B., & Son.	45
Balto. Fidelity Warehouse Co.	32	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Rand Drill Co.	45	Stirling Co., E. B., & Son.	45
Baltimore-Maryland Engraving	28	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Ransom Concrete Mch. Co.	45	Stirling Co., E. B., & Son.	45
Balt. Shipbldg. & Dry Dock Co.	68	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Ransome & Smith Co.	8	Stirling Co., E. B., & Son.	45
Baltimore Steam Packet Co.	59	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Ransom & Morrison Mfg. Co.	20	Stirling Co., E. B., & Son.	45
Barber, A. H., Mfg. Co.	32	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Raymond Bros. Impact Pulv. Co.	45	Stirling Co., E. B., & Son.	45
Barnes, W. F. & John, Co.	27	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Rayne Progressive Union.	55	Stirling Co., E. B., & Son.	45
Barnett, G. & H., Co.	62	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Reed Cy Press Lumber Co.	55	Stirling Co., E. B., & Son.	45
Barr & Elam.	6	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Reed Mfg. Co.	61	Stirling Co., E. B., & Son.	45
Barrett Mfg. Co.	30	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Reedy, J. W., Elevator Mfg. Co.	10	Stirling Co., E. B., & Son.	45
Bartlett, C. O., & Snow Co.	*	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Reliance Gauge Column Co.	19	Stirling Co., E. B., & Son.	45
Bates, J. C., Sons.	10	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Remington Mch. Co.	24	Stirling Co., E. B., & Son.	45
Bates Machine Co.	18	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Replogle Governor Works.	24	Stirling Co., E. B., & Son.	45
Beach, H. W.	50	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Reynolds, Alfred C.	42	Stirling Co., E. B., & Son.	45
Beaumont Trust Co.	33	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Richardson & Co., Inc.	42	Stirling Co., E. B., & Son.	45
Beckley, A. J., Co.	48	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Richardson Scale Co.	62	Stirling Co., E. B., & Son.	45
Belmont Iron Works.	51	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Richmond Pattern Works.	55	Stirling Co., E. B., & Son.	45
Bennett, G. L.	38	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Richmond Trust & Safe Co.	55	Stirling Co., E. B., & Son.	45
Berlich & Co.	28	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Ridgeway Dynamometer & Engine Co.	19	Stirling Co., E. B., & Son.	45
Bickford Drill & Tool Co.	28	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Ridson-Alcott Turbine Co.	37	Stirling Co., E. B., & Son.	45
"Big Four"	58	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Ridson, Hugh C.	38	Stirling Co., E. B., & Son.	45
Bird, F. W., & Son.	47	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Ridson, Hugh C.	38	Stirling Co., E. B., & Son.	45
Bird, J. A. & W., & Co.	49	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Ridson, Hugh C.	38	Stirling Co., E. B., & Son.	45
Bird, Wm. A., & Co.	8	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Ridson, Hugh C.	38	Stirling Co., E. B., & Son.	45
Birmingham Boiler Works.	17	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Ridson, Hugh C.	38	Stirling Co., E. B., & Son.	45
Birmingham Mail & Loc. Co.	41	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Ridson, Hugh C.	38	Stirling Co., E. B., & Son.	45
Blakely, A. S., & Co., Ltd.	1	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Ridson, Hugh C.	38	Stirling Co., E. B., & Son.	45
Blakenlee Mfg. Co.	16	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Ridson, Hugh C.	38	Stirling Co., E. B., & Son.	45
Blanke, Ewald G.	35	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Ridson, Hugh C.	38	Stirling Co., E. B., & Son.	45
Blythe, Richard A.	35	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Ridson, Hugh C.	38	Stirling Co., E. B., & Son.	45
Boiles, J. E., Iron & Wire Wks.	35	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Ridson, Hugh C.	38	Stirling Co., E. B., & Son.	45
Boomer & Boschert Press Co.	35	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Ridson, Hugh C.	38	Stirling Co., E. B., & Son.	45
Boston & Maine Railroad.	43	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Ridson, Hugh C.	38	Stirling Co., E. B., & Son.	45
Boston Belting Co.	25	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Ridson, Hugh C.	38	Stirling Co., E. B., & Son.	45
Bourne-Fuller Co.	23	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Ridson, Hugh C.	38	Stirling Co., E. B., & Son.	45
Bourne, The.	27	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Ridson, Hugh C.	38	Stirling Co., E. B., & Son.	45
Bowen & Street Equipment Co.	40	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Ridson, Hugh C.	38	Stirling Co., E. B., & Son.	45
Bower, E. H.	35	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Ridson, Hugh C.	38	Stirling Co., E. B., & Son.	45
Brazier, J. H.	37	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Ridson, Hugh C.	38	Stirling Co., E. B., & Son.	45
Bradley, J. S.	38	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Ridson, Hugh C.	38	Stirling Co., E. B., & Son.	45
Bradley Pulverizer Co.	40	Carroll, George.	30	Florida Electric Co.	60	Lafourche Progressive Union.	58	Ridson, Hugh C.	38	Stirling Co., E. B., & Son.	45
Brennan, P. C.	6	Carroll, George.	3								

PROPOSALS.

When Competitive Bids are Wanted

from first-class firms, these columns are invaluable in reaching engineers, architects, builders and contractors on railroad construction (steam and electric), water works, sewerage, electric light plants, municipal improvements, buildings and all public franchises and utilities throughout the entire country. Rate—20 cents per line per issue.

When the next regular issue of the Manufacturers' Record is too late for quick bids, the Daily Bulletin of the Manufacturers' Record will bring immediate results, as it is published every business day in the year, reaching many of the leading engineers, contractors, manufacturers and others, North, East, South and West.

Jno. C. Stanfield, Supervisor Washington County, Holston, Va., who advertised in the proposal columns of the Manufacturers' Record for bids on the steel bridge across the Holston River, Va., writes in regard to the results obtained from this advertisement, as follows:

"My advertisement in your paper was entirely satisfactory. I had twelve bidders from the different States, and, in my opinion, I thought this was a good representation of the bridge builders of the country. I will most heartily endorse your paper as the one to advertise in."

Hon. J. A. Hadley, Mayor, Mt. Airy, N. C., in writing the Manufacturers' Record of the results from the advertisement he inserted in this column asking for bids on water works and electric light plant, says:

"Our special advertisement brought a number of inquiries for specifications for our proposed town improvements. We are well pleased with the results."

TREASURY DEPARTMENT, Office of the Supervising Architect, Washington, D. C., August 8, 1903.—Sealed proposals will be received at this office until 3 o'clock P. M. on the 16th day of September, 1903, and then opened, for the low-pressure steam-heating apparatus, complete in place, for the United States Courthouse and Postoffice Building at Cumberland, Md., in accordance with drawings and specification, copies of which may be had at this office or at the office of the Superintendent at Cumberland, Md., at the discretion of the Supervising Architect. JAMES KNOX TAYLOR, Supervising Architect.

TREASURY DEPARTMENT, Office of the Supervising Architect, Washington, D. C., August 8, 1903.—Sealed proposals will be received at this office until 3 o'clock P. M. on the 15th day of September, 1903, and then opened, for the installation of a conduit and electric wiring system for the United States Postoffice at Cumberland, Md., in accordance with the drawings and specification, copies of which may be obtained at this office or at the office of the Superintendent of Construction, at the discretion of the Supervising Architect. JAMES KNOX TAYLOR, Supervising Architect.

SEALED PROPOSALS will be received until 12 o'clock noon, September 15th, 1903, by the City of Greenville, Mississippi, addressed to Wm. Yerger, City Clerk, for furnishing material and labor necessary to construct, approximately, 30,000 square yards of brick pavement. The principal items are 30,000 square yards of brick pavement and concrete foundation, 10,000 lineal feet stone curbing. Each bid must be accompanied by a certified check for \$500, payable to the City Clerk. Plans and specifications are on file at the office of the City Engineer. Contractors are invited to submit their own plans and specifications with sealed bid for same. The right to reject any and all bids is reserved.

WM. YERGER,
Clerk City of Greenville.

Notice to Bridge and Stone Contractors.

SEALED PROPOSALS will be received by the County Court of Wetzel County, W. Va., at New Martinsville, W. Va., until Monday, August 24, 1903, at 3 o'clock P. M., for the construction of steel bridge across South Fork, at Jacksonburg, on line of West Virginia Short Line Railroad, according to plans on file in the office of the clerk of said court. Length 140 feet, width 16 feet. Also bids will be received at same time and place for the stone abutments for said bridge, and also for stone abutments for bridge at Smithfield. Court reserves right to reject any or all bids. I. D. MORGAN, Clerk.

TREASURY DEPARTMENT, Office of the Supervising Architect, Washington, D. C., August 16, 1903.—Sealed proposals will be received at this office until 3 o'clock P. M. on the 22nd day of September, 1903, and then opened, for the construction (including heating apparatus and electric wiring and conduits) of the United States Postoffice at Martinsville, Va., in accordance with the drawings and specification, copies of which may be had at this office, or the office of the Postmaster at Martinsville, Va., at the discretion of the Supervising Architect. JAMES KNOX TAYLOR, Supervising Architect.

FORT MYER, VA., Aug. 17, 1903.—Sealed proposals, in triplicate, for addition to hospital will be received until 10 A. M., September 1, 1903. The United States reserves right to reject or accept any or all bids, or any part thereof. Information on application. Envelopes containing bids should be indorsed "Proposals for Addition to Hospital," addressed Capt. R. Harrison, Q. M.

TREASURY DEPARTMENT, Office of the Supervising Architect, Washington, D. C., August 10, 1903.—Sealed proposals will be received at this office until 3 o'clock P. M. on the 24th day of September, 1903, and then opened, for the erection and completion of a Flying Cage for the U. S. Government at the Louisiana Purchase Exposition, St. Louis, Missouri, in accordance with the drawings and specification, copies of which may be had at this office or at the office of the Superintendent of Construction, St. Louis, Mo., at the discretion of the Supervising Architect. JAMES KNOX TAYLOR, Supervising Architect.

NOTICE TO CONTRACTORS.

CHARLESTON, S. C., August 1, 1903. The trustees of the James S. Gibbs Art Gallery, viz.: Judge Charles H. Simonton and Mayor J. Adger Smyth, invite sealed proposals for the erection and completion of an Art Gallery in the City of Charleston, S. C., agreeable to the plans and specifications now on file with J. H. Dingle, City Engineer, Charleston, S. C., and at the office of the Architect, Frank P. Milburn, Columbia, S. C. Each contractor will file with his bid a certified check on some well-known bank for the sum of \$2000, made payable to the trustees, as evidence that if his bid is accepted he will enter into contract at once, and give an acceptable Guarantee Company's bond in the sum of \$25,000 for the faithful performance of the contract.

Should the successful contractor fail to file the bond required within twenty days, his check will be forfeited as liquidated damages by reason of the delay.

For more detailed information see plans and specifications. Bids must be filed with Architect FRANK P. MILBURN, Columbia, S. C., on or before August 29th, 1903.

The trustees reserve the right to reject any or all bids.

WATER WORKS FRANCHISE.

HOUSTON, TEXAS, August 14, 1903. Sealed proposals addressed to D. D. Bryan, City Secretary of the City of Houston, Texas, will be received up to 12 o'clock noon Monday, Sept. 14, 1903, for a twenty-one year franchise for a water works plant to be located in the City of Houston, Texas. The plant must be adequate for the needs of a growing city with a population now estimated at 70,000, and must be constructed with the view to furnishing good, pure water, and at such a price as will compensate the city for the franchise to be granted.

Bidders will indicate what compensation they will be willing to give in consideration for the franchise, and what concession they will allow in the way of water rates.

The city reserves the right to reject any and all proposals.

D. D. BRYAN, City Secretary.

O. T. HOLT, Mayor.

PITTSBURG METER CO.

MAKERS OF

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OFFICE AND WORKS:

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will issue \$20,000 first mortgage 6 per cent. gold bonds for improvement purposes, and parties interested in a small issue of good securities are invited to correspond with me. Address

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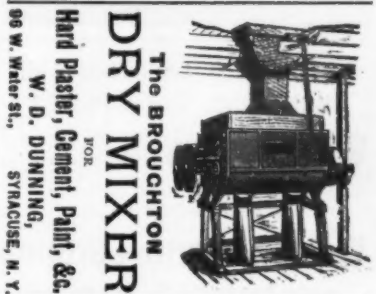
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on the Mesaba Range. Also iron prospects on the Vermilion and Mesaba Iron Ranges. We have the present time three properties partially developed, that we are ready to offer to consumers. We have sold properties to the Cleveland Cliffs Iron Company, Deering Harvester Company and others. As to our responsibility, we refer you to the First National Bank of Duluth, City National Bank of Duluth, Duluth Savings Bank, Commercial Bank and American Exchange Bank, or any business house in the city.

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JAS. W. WILSON, President,
Write for Booklet. WELDON, N. C.

50 H. P. WATER POWER.

May be doubled. Location four miles to railroad. Good location for wheat, corn, saw milling or wood manufacturing, brick making. Want to sell interest in the business to active man who can take charge and manage. Now running 2 3/4" water wheels on wheat, corn and lumber.

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We have a plant consisting of three-story brick building, warehouse attached, waterwheel developing 100 H. P. at \$5.50 per H. P. per year. Plant suitable for installing machinery for almost any kind of industry requiring this amount of power. Owners willing to take stock in any promising enterprise. Address

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Level land above utmost limit of high water, together with other inducements, will be given to persons or companies who will construct manufacturing plants thereon. Iron and steel working plants preferred. Address

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Plant consists of five Waymouth lathes, 2 back knife lathes, 2 Smith pail wood lathes, 2 automatic pail wood boring machines, 1 automatic pail wood gang saw, complete set of blacksmith tools, 1 10x12 Warren engine, 1 100 H. P. locomotive boiler, 1 engine lathe, 1 shaper, dry kiln, enameling rooms, full set of knives and chucks for lathes, shafting, hangers, pulleys and belting.

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FOR SALE CHEAP.

Good, small Woodworking Plant, 50 horse power, well equipped with the best machinery. Owner is a contractor and can't run the plant longer. Must sell. No other plant in the city. Address

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5,000 Acres Best Fire Clay Land,

In Kentucky, on C. & O. Railway, near Olive Hill. Veins 6 ft. to 15 ft. For particulars write

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WANTED.

An experienced man as a promoter for Pottery clay, known as "Kaolin," used in fine china; for high grade sand used for plated glass, and for iron ore. For information write to

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FOR SALE—The Cherokee Brick and Tile Works, doing a good business; in excellent condition. Address

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We offer for sale an up-to-date milling plant, with dry kilns and planing mill attached. At the junction of two trunk lines of railroad. Timber has been estimated to cut about 22,000,000 feet. Rate to Brunswick, Ga., a deep water port, \$6.00 per car. Price \$25,000 cash.

This is a going concern and is ready for buyer to step right into a paying business. Good reasons given for wanting to sell.

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By J. E. CONANT & CO., Auctioneers, OFFICE, LOWELL, MASS.

BOSTON, June 25th, 1903.

Dear Sirs:—In accordance with the terms of the Declaration of Trust under which we hold the property of the Bondholders of the Atlas Tack Corporation, we hereby authorize and instruct you to advertise and sell to the highest bidders, at public sale, in such manner and under such terms and conditions as in your judgment seem best (but subject to our approval), the real estate, machinery and miscellaneous personal property now in our possession, and formerly belonging to the plants of the Albert Field Tack Company and the Taunton Tack Company at Taunton, the American Tack Company at Fairhaven and Loring & Parks at Plymouth and Duxbury, Massachusetts.

JAMES RICHARD CARTER,
WM. A. RUST,

Trustees for the Bondholders of the
Atlas Tack Corporation.

To J. E. CONANT & CO.
Lowell, Massachusetts.

6 Manufacturing Plants, 10 Lots of Real Estate, 2 Water Powers, 1 Wharf Property, 950 Lots of Machinery, Etc.

WITHOUT LIMIT OR RESERVE—IN LOTS TO SUIT PURCHASERS.

Real Estate, Machinery, Tools, Engine, Electric Generators, Motors and Dynamos, Paper-Box and Wrapper Machines, Tack, Nail and Rivet Machinery, Belting, Shafting and other personal property.

On TUESDAY and WEDNESDAY, August 25th and 26th, 1903, at Taunton; THURSDAY, August 27th, at Fairhaven (New Bedford), and FRIDAY, August 28th, at Plymouth and Duxbury; on the respective premises, regardless of weather and promptly at the appointed hours.

TUESDAY, at 10.15 A. M., the real estate of the large plant of A. Field & Sons, Spring Street, Taunton; main shop, brick, 2 1/2 stories, 280x42 ft., brick office and supply storage building 60x40 ft., boiler-house and engine-room, and several wooden buildings and shops; steam heated, gas lighted and wired for electric lights and power; also 2 1/2 acres of land. This property generally is in good condition.

At 11 o'clock A. M., the real estate of the small No. 2 plant of A. Field & Sons, between Spring and Weir Streets; main shop 3 stories, wood, 175x35 ft.; 2-story ell 90x25 ft., boiler-house, engine-room and other frame buildings; heated by steam, gas, and wired for electric lighting and power; also 1 1/2 acres of land. This property is in good condition.

At 12.30 o'clock noon, the real estate of the Taunton Tack Co., Mechanics et., off Weir st.; main building 3 stories, wood, 300x40 ft.; 1-story ell 162x40 ft., boiler-house, engine-room and several 1-story frame ells; steam heated, gas lighted and wired for electric power; also 2 acres of land. This property generally is in prime condition.

With each of these plants go all the main shafting, main belting, elevators and boilers.

At 10.45, 11.30, 11.45 and 11.55 A. M., 12.15 noon and 1 and 1.15 P. M., the 2-story 2-family house and lot, 21 Spring st.; the stable property, Spring st.; 2 2-family houses and lots, 18 and 16 Spring st.; corner lot opposite State armory, Weir st.; vacant plot of land north side of Mechanics et.; business site, Weir st., corner Mechanics et.

WEDNESDAY, at 9.45 o'clock A. M., 800 lots machinery, tools, engine, etc., motors, dynamo, generator, automatic paper-box and wrapper machinery, tack, nail, rivet and eyelet machinery, lathes, drills and blowers; nearly all in splendid condition and running order; copper cable, telephones, blacksmiths' tools, belting, shafting, scrap iron, office furniture and numerous lots of other personal property.

THURSDAY, at 12.30 o'clock noon, the real estate of the American Tack Co. plant, Fort st., Fairhaven (New Bedford); main shop 3 stories, stone, 260x35 ft., 3-story frame ell 80x40 ft., boiler-house, engine-room, stone blacksmith shop 50x35 ft., 1 and 2 story frame and brick ells; steam heated, electric are lighted, has an excellent and complete steam-power plant ready to start, with main shafting and belting; also 2 1/4 acres of land with a harbor frontage of 400 ft. This property is a good one.

At 1 o'clock P. M., stone wharf property, extending into New Bedford harbor 315 ft. to the main channel; is 75 ft. wide; will dock any vessel that can get into the harbor; has an acre and a third of land, which adjoins the tack plant, extends to Fort st. and possesses a good stable, storehouse and shed. This wharf has the reputation of being the best property of its kind about New Bedford.

At 1.30 and 1.40 o'clock P. M., vacant plot of land adjoining tack plant and reaching from Fort st. to the harbor. House lot on Green st. between houses numbered 35 and 45.

At 2 o'clock P. M., 150 lots of machinery, tools, dynamo, motor, tack and nail machinery, blowers, etc.; nearly all in splendid condition and running order; blacksmiths' tools, belting, shafting, scrap iron, office furniture, typewriter and numerous lots of other personal property.

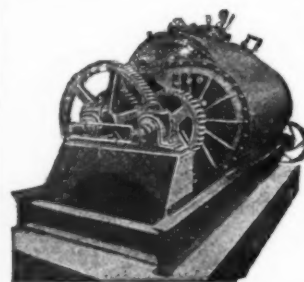
FRIDAY, at 10.30 o'clock A. M., the real estate, water-power plant and privilege of the Loring & Parks factory, Town Way, off Summer st., Plymouth; main building 2 stories, frame, 120x40 ft., 2-story ell 40x30 ft.; also irregular-shaped ells equaling in floor space the main building; boiler-house and boilers; buildings heated by steam and supplied with automatic sprinklers; there are 40, 15 and 10 h.p. turbine wheels, also 1 1/2 acres of land and mill-pond rights. With one exception, the buildings are solid and substantial.

At 11 o'clock A. M., four tenement building and 6670 sq. ft. of land, Nos. 50 and 52 Summer st.

At 12.45 o'clock noon, the real estate, water-power and privilege of the Island Creek plant, Duxbury. Frame building 1 1/2 stories, 111x28 ft., one-half comparatively new; also 13,700 sq. ft. of land.

Make all inquiries relating to the sale or terms, by mail, telephone or otherwise, at the office of the Auctioneers, where you should send for a

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6-8-10 BRIDGE ST.,
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Soils and Climate similar to famous Vuelta Abajo District of
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So Says Secretary Wilson
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Filler and Wrapper can be
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Small Textile Plant, Manufacturing Ladies' Underwear.

In full operation. Machinery all new. Established trade. Bad health of owner, reason for selling. For further particulars, address

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Axe Handle Shapes and Turned Axe Handles in the Rough,

Car load lots, for cash.

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Flour Mill, Elevator, Planing Mill,
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To settle the estate of Wm. Ward, deceased, I offer for sale his splendid combined Flour Mill, Elevator, Planing Mill and Electric Light Plant, at Lancaster, Ky. Flour mill has 75 barrels capacity, just refitted with the most modern machinery throughout; the electric light plant very latest pattern, and includes the exclusive franchise in the city; planing mill in perfect repair; all operated with one power.

This is one of the finest investments in Kentucky, and will pay interest on twice the amount asked for it. Address

R. G. WARD, Administrator,
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Consisting of 16x24 slide valve engine, 3 boilers, wheel and carriage, dry kiln piping, lath machinery, 30 head very heavy mules and horses, drays, etc. All new; only in use one year; now in operation.

Will sell in part or whole. Schedule upon application. Address

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- 4 100 H. P. Economic Portable type.
- 14 RETURN TUBULARS, 72"x17", INSURED 110 lbs. HARTFORD.

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- 4 22x42x48 Hamilton Corliss, c. c.
- 1 22x42x48 Reynolds Corliss, tandem comp.
- 1 22x42x48 Harris Corliss, Steeple.
- 1 20x40x60 Watts Campbell, cross comp.
- 1 13x19x15 McIntosh & Seymour.
- 1 13x20 1/2x15 Armstrong & Sims, c. c.
- 1 28x48 Wetherill Corliss.
- 1 20x40 Hamilton Corliss.
- 1 18x36 Cummer, 4 valve.
- 1 18x48 Brown Corliss.
- 1 18x18 Ridgeway McEwen.
- 1 16x16 Ball & Wood.
- 1 13x21 Buckeye automatic.
- 1 13x14 Ideal automatic.
- 1 13x12 Armstrong & Sims automatic.
- 1 12x12 Armstrong & Sims automatic.
- 1 9x12 Armstrong & Sims automatic.
- 1 14 1/2x28 Delamater Corliss.
- 1 12x34 Brown-Fitchburg Corliss.
- 1 18x22 Atlas automatic.
- 1 7x10 Ideal automatic.
- 1 8x7 Westinghouse automatic.

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One Lodge & Shipley lathe, 18 in x10 ft.
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One No. 11 Union Drop Forge Com-
pany's oil furnace, new. Address

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- 1 20-36x42 tandem Fitchburg.
- 1 18-30x16 Westinghouse.
- 1 18-34x48 cross compound Cooper Corliss.
- 4 16-32x48 tandem compound Cooper Corliss.
- 1 16-27x16 Westinghouse.
- 1 16-28x18 tandem Erie Ball.
- 1 16-26x17 tandem McIntosh & Seymour.
- 1 15-25x16 Erie Ball cross compound.
- 1 15-23x17 tandem McIntosh & Seymour.
- 1 14-25x16 Ball & Wood cross compound, self-contained.
- 1 14-23x16 tandem Ames.
- 1 14-24x14 Westinghouse.
- 1 13-22x13 Westinghouse.
- 2 13-23x18 tandem Williams.
- 1 13-19x15 tandem McIntosh & Seymour.
- 1 8 1/2-12x14 tandem McIntosh & Seymour.
- 1 36x72 Corliss, 50-ton wheel.
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- 1 22x42 Harris Corliss.
- 1 21x18 Armstrong & Sims.
- 1 18x48 Knowlson & Kelly Corliss.
- 1 18x48 Allis Corliss.
- 1 18 1/2x18 McIntosh & Seymour.
- 2 16x16 Ball & Wood.
- 1 15 1/2x24 Buckeye, tangle frame.
- 1 14 1/2x24 Buckeye, tangle frame.
- 1 14x16 Safety, New York Power Co.
- 2 13x18 Harrisburg Ideal.
- 1 11x12 McIntosh & Seymour.
- 1 9 1/2x10 Armstrong & Sims.
- 1 9x12 Ball.

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- 1 250 H. P. Babcock & Wilcox, water tube.
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Electrical and Steam Machinery,

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MENGEL'S MACHINERY EXCHANGE

15 H. P. Geyser Portable Boiler and Engine on wheels. 25 H. P. Portable Duvall on skids. 10 H. P. Baxter Engine and Boiler combined. 35 H. P. White & Middleton Gas or Gasoline Engine, 12" by 36". 60 H. P. Hamilton-Corliss Engine, directly connected to 25-ton Linde Ice Machine. 5 and 10-ton Vertical Compressors. 4 25 and 35 H. P. Horizontal Engines. Sharp's Collar and Cuff Ironer. Band Starcher and Ironer. 30 gal. Copper Starch Kettle. 60-light Dynamo. 25 110 volt Manhattan Arc Lights. Cylinder and Job Printing Presses. Paper Cutters. Complete Plants and Machinery of all kinds Bought, Sold and Exchanged.

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ENGINES, BOILERS AND PUMPS, for immediate delivery.

Three (30 h. p.) 60"x16" Boilers. One (60 h. p.) 60"x14" Boiler. One No. 14 (100 h. p.) Economic Portable Boiler. One 5"x21" (60 h. p.) Bucyrus Boiler. HEATERS—One 1000 h. p. Berryman. One 50 h. p. Erie. ENGINES—One 6"x6" Vert. (Greenfield). One 9"x12" Box Bed Side Crank (Talbot). One 12"x16" Box Bed Side Crank (Erie City). One 14"x24" Box Bed Side Crank (Poele & Hunt). One 16"x34" Box Bed Side Crank, fly wheel 9' x16". One 16"x34" Box Bed Side Crank, fly wheel 8' x16". HOISTING ENGINES—One 5"x8" Double Cylinder, Single Drum (Lidgerwood), no boiler. One 5 1/2"x10" Double Cyl., Link Motion (Neafie & Levy), no boiler. One 8"x8" Double Cyl., Single Drum (Copeland & Bacon), no boiler. LOCOMOTIVES—One 5"x10" Porter, Saddle Tank, Standard Gauge. TUG BOAT—One 64"x14"—17"x17" engine. Write for stock list of new and second-hand machinery; also our large machinery and supply catalogue. Address

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75 K. W. direct connected set.
115 volts, excellent condition,
J. C. M. LUCAS,
22 Light Street, BALTIMORE.

FOR SALE.

One Second-hand "BERRYMAN" HEATER AND PURIFIER, in perfect condition and guaranteed good as new. Will sell cheap for cash. Address

M. F., care Mfrs. Record,
Baltimore, Md.

FOR SALE.

Immediate Delivery.

AIR COMPRESSORS.

Two Rand Straight Line, "Class C," 18"x18"x24", One Ingersoll-Sergeant, Class "G," Duplex, 20"x20"x24".
One Norwalk (2 stage) 14"x14"x9 1/2"x16".
Two Rand Duplex (3 stage) 16"x14"x8 1/2"x4 1/2"x22".
One Rand Duplex Corliss, 20"x20"x36".

BOILERS.

Four Babcock & Wilcox Water Tube, 208 h. p. each, shaking grates.
Eight Horizontal Return Tubular, 66"x16".
Three Horizontal Return Tubular, 72"x12".
Four Horizontal Return Tubular, 72"x16".
Three Horizontal Return Tubular, 60"x16".
Nine Horizontal Return Tubular, 72"x18".

ENGINE.

One 20"x40" Buckeye, girder frame, band wheel in half, 12"x31" face.

LOCOMOTIVES.

36" gauge Locomotives.
Four H. K. Porter 9"x14", saddle tank.
Two Vulcan 9"x14", saddle tank, built 1900.

RAILS.

200 tons 30-lb. steel relayers.
200 tons 35-lb. steel relayers.
500 tons 56-lb. steel relayers.

CARS.

Eighty 80,000-lb. Ore Hopper Cars, made by Allison Mfg. Co.

PUMP.

1 Worthington Compound Duplex Condensing Pump, 25"x43"x17 1/2"x36", 20' suction and 18' discharge. Capacity, 3,000,000 gallons. All of the above in A-1 order and ready for immediate delivery.
We buy and sell Air Compressors, Engines, Locomotives, Rails, Cars, Bridges, Boilers, Hoisting Engines and Pumps, etc. Complete plants purchased.

Steam Street Motor Car.

Baldwin standard gauge, compound cylinders, only four years old, weight 60,000 pounds. Cost new, \$5900. For quick acceptance will be sold at a great bargain, subject prior sale and inspection.

BOILER STACK.

1000 feet of 34" Boiler Stack, 5-16" material. This stack is first-class in every respect and will be sold at a bargain.

CYLINDER BOILERS.

8 Boilers, 40' long x 34" diam., good for 100 lbs. steam pressure, without fixtures or fittings. For quick sale will be sold cheap.

A. V. KAISER & CO.

222 South Third St., PHILADELPHIA, PA.

ENGINES.

One 18x42 Harris-Corliss Engine.
One 16x20 S. C. Washington Iron Works' Engine self-contained.
One 13x22 S. C. Caldwell Engine.
One 11x18 S. C. Talbot Engine, Box-bed.
One 14x16 S. C. Engine.
One 11x15 Richmond Locomotive Works' S. C.
One 11x14 A. & C. C. C. Engine.
One 7x8 Vertical Engine.
One 6 H. P. Vertical Engine.
One 4 H. P. Vertical Engine.
One 20 H. P. Farquhar Traction Engine.
One 15 H. P. Aultman & Taylor Traction Engine.
One 12 H. P. Birdsell Traction Engine.
One 10 H. P. Frick Engine and Boiler mounted on wheels.

BOILERS.

One 80 H. P. High-Pressure R. T. Boiler, good for 120 lbs. steam working pressure.
One 80 H. P. R. T. Boiler.
One 70 H. P. R. T. Boiler.
One 60 H. P. R. T. Boiler, Half-Front.
One 50 H. P. R. T. Boiler, Full-Front.
One 50 H. P. Economic Boiler.
One 40 H. P. Economic Boiler.
One 40 H. P. R. T. Boiler, Half-Front.
One 25 H. P. R. T. Boiler, Half-Front.
One 20 H. P. R. T. Boiler, Half-Front.
One 15 H. P. Locomotive Type Boiler on wheels.
One 30 H. P. Vertical, and several smaller sizes.
Also several sizes of pumps and other machinery. The above are in A-1 condition. Write for particulars.

Jno. A. Waters & Co., Richmond, Va.

FOR SALE.

Fifty Whitin Welman Top Flat Cards, with 40 tops 40 ins. wide. Cylinder 42 x40 ins. Doffer 40x18 ins. Floor space 8 ft. 2 ins. x5 ft. 2 ins., with coils. Production 125 lbs. per day. Some of these cards are only 3 years old, balance 8 years. They can be seen running. Also 150 sets Steel Clothing in extra good condition; 100 Doffers; 150 Mason Looms, 44"; 10 Ashworth Revolving Top Cards. For full information and price apply to

WM. J. DUNN,

Fall River, Mass.

FOR SALE.

\$75,000 worth of New Leather Belting, somewhat stock-worn, but for all practical purposes as good as ever, running in sizes from 1 inch wide to 24 inch wide, single and double. Will sell this belting at second-hand prices in lots to suit buyers, and it can now be inspected in our warehouses.

L. F. SEYFERT'S SONS,

437-439 N. Third Street, PHILADELPHIA.

FOR SALE.

Two Pairs 16x20 Link Motion Engines.

Can be used for Hoisting
Purposes.

CHAS. T. LEHMAN,

BIRMINGHAM, ALA.

LATHES.

- No. 72 14"x8' Lodge & Shipley.
No. 78 14"x8' Lodge & Shipley.
No. 49 20"x10' Taper, Lodge & Shipley.
No. 47 20"x8' Lodge & Shipley.

THE LODGE & SHIPLEY MACHINE TOOL CO.

CINCINNATI, OHIO,

U. S. A.

FANS.

Central station man's opportunity to increase the day load. We offer for immediate delivery, all f. o. b. Cincinnati, the following 125 cycle fans:

- 150 G. E. swivel and turn, 12 in., 104 volt., \$5.00 each.
150 Emerson solid, 12 in., 52 volt., \$3 each.
200 Westinghouse solid, 13 in., 52 volt., \$3.50 each.
100 G. E. swivel and turn, 12 in., 52 volt., \$4.00 each.

JOHN A. STEWART ELECTRIC CO.
420 Sycamore St., Cincinnati, Ohio.

FOR SALE.

- 50 H. P. Engine, side crank, self-contained, 12x18 cylinder, flywheel 66" diameter, 14" face; all appurtenances, built by Casey & Hedges, Chattanooga, Tenn., and none better made. In use about three years, with best care.
 - 25 H. P. Boilers, Scotch marine, return tubular, stacks 25", 20" diameter; all appurtenances and pipe connections. Built by Casey & Hedges, and none better built. In use about three years, with best of care.
 - Worthington Prospecting or Sinking Pumps, 4 1/2"x3 1/4"x4", steam pipe 3/4" discharge 1 1/4", suction 2", capacity 300 gals. of sandy, gritty water. In fine condition.
 - Centrifugal Pump, 2" discharge, 2 1/2" suction. Made by Thos. Williamson, Hockessin, Del. A splendid pump, in fine condition.
 - Flory Hoisting Engine, cylinder 3/4", friction drum 10" diameter, 16" long. Capacity 900 lbs., with single line.
 - Horse Power Hoisting Drums, with automatic safety attachment. Made by Thos. Carlin Sons, Allegheny, Penn.
 - Fairbanks Trussed Lever Scales, Platform 10'x9' 13", capacity 26,000 lbs.
 - Fairbanks Portable Scales, capacity 1000 lbs. large platform for barrows.
- Also a large lot of Pulleys, 6" to 36" diameter and 6" to 28" face, iron and wood split.
Belting, Chesapeake brand, 29" to 32" and 4" to 14" wide.
Rubber, 12, 13 and 18" long, 6" face.
Also, complete machinery for washing clay.
1 Imhauser Watchman's Time Detector, 10 stations.

KAOLIN MANUFACTURING CO.
Waynesville, N. C.

FOR SALE.

One 18x24 Pittsburg Locomotive. Six Drivers. Weight 42 tons. Condition good. Price \$3500.00. Immediate shipment.

W. F. DAVIS,
Birmingham, Ala.

FOR SALE.

- 12 Western Wheeled Scrapers.
10 Drag Scrapers.
4 Western Railroad Plows.
2 Rooter Plows.
1 two and one-half ton Ames Disc Roller.

WILLIAM HANLEY, Contractor, Bradford, Pa.

BOILERS—Second Hand, FOR SALE.

- 1 50 H. P. horizontal.
1 60 H. P. horizontal.
1 70 H. P. vertical.
6 steam pumps, new. All good condition.

E. J. Codd Co., Baltimore, Md.

BARGAINS—CHEAP.

One Deane Duplex Comp. Pump, 14x26x11x18.
One 20x13 Blake Pattern Crusher, nearly new.
Three Hoisting Engines. Rails, Locomotives.

L. E. KENNEDY & CO.
17 Broadway, New York City.

FOR SALE.

Partial List Second-Hand Machines

- 13"x5' Pratt & Whitney, rise and fall rest, with taper.
14"x5 1/2' Putnam, rise and fall rest.
14"x6' Prentiss, rise and fall rest.
14"x6' Blaisdell, rise and fall rest, with taper.
15"x6' Poeter, rise and fall rest.
15"x6' Prentiss, rise and fall rest, with taper.
16"x8' Pratt & Whitney, rise and fall rest, with taper.
16"x7' M. B. & C., plain rest.
16"x10' Fay & Scott, compound rest.
18"x8' Reed, plain.
18"x8' Lodge & Davis, compound rest and taper.
24"x10' No Name, incomplete.
26"x8' Betts Lathe, compound rest.
30"x8' Stark, plain.
30"x14' Betts Lathe, compound rest.
No. 2 B. & O. Turret.
No. 14 Garvin Special Forming Turret Lathe.
14"x8' Lodge & Barker Turret Lathe.
16"x8' Johnson Turret Lathe.
18"x8' Lodge & Davis Chucking Lathe.
Six-Spindle Mill, Bement & Co. Arch Bar Drill.
25" Bickford Upright Drill.
30" Barnes Upright Drill.
Three-Spindle Upright Slat Sensitive Drill.
Three-Spindle Garvin Sensitive Drill.
24"x24"x6' Sellers Planer, one head.
42"x42"x10' Whitcomb Planer, two heads.
42"x42"x18' Betts Planer, one head.
16" Smith & Mills Shaper.
No. 2 Keyseat Milling Machine.
No. 2 Garvin Plain Milling Machine.
No. 1 B. & S. Universal Milling Machine.
No. 4 1/2 Garvin Plain Mill.
2 No. 2 Garvin Plain Millers.
No. 4 1/2 Brainard Plain Mill.
No. 4 Schlenker Double-Head Bolt Cutter.
2" Pratt & Whitney Cutting-Off Machine.
12" Lowell Machine Co.'s Slotter.
Double-Head Pratt & Whitney Horizontal Boring Mill.
Cold Saw, 19" Blade, Pump and Pan.
30" Springfield Knife Grinder.
Wells Bros. Cutter and Reamer Grinder.
Springfield Tool Grinder, 36" Wheel, with pump.
2 Speed Lathes.
35 H. P. Portable Boilers.
1 Blacksmith Bellows.
Also a complete line of new machines. Correspondence solicited.

Brown & Zortman Machinery Co.,
Pittsburg, Pa.

2ND-HAND TOOLS.

- Lathes.**
18 in. x 8 ft. Field.
20 in. x 4 ft. New Haven.
27 x 14 1/2. Place heavy.
28 x 13 ft. Fay & Scott.
17 Stewart Speed Lathes.
18 in. x 8 ft., comp. rest, Lowell.
Axle Lathes, Bement (3).
- Grinders.**
No. 2 Surface, Universal Co.'s.
34 in. x 18 ft. Springfield Surface.
- Wood Working.**
No. 1 Greenlee, Auto. R. R. Cut-off Saw.
16 in. Goodell & Waters Planer, 1 1/2 in.
Prybil Planer and Joiner.
Ex. heavy 4 side Timber Planer and seven other machines.
- Miscellaneous.**
Sq. Arbor Gate Fox Lathe, 50 lb. Bliss Drop Hammer.
40 lb. Merrill Drop.
Oil Separator, American No. 1 B. & S. Univ. Miller.
No. 2 P. & W. Screw Slotter.
18 in. Bement Slotter.
10 H. P. N. Y. Safety Engine, etc., etc.

Write your requirements.

G. L. BENNETT, 113 Liberty St., New York.

FOR SALE.

Immediate Delivery.

- One Westinghouse Standard Engine, 11x11 Est. H. P. 60.
One Westinghouse Standard Engine, 11x10 Est. H. P. 50.
One Slide Valve Engine, 10x12, Est. H. P. 30.
Two Return Tubular Boilers, each 60"x18", Est. H. P. 80 each.
Two Smith-Vaile Single Hydraulic Pumps, 12x1 1/2 x14.
The above machinery is in good order and was in operation up to April 30th, when it was taken out on account of enlargement and changes in our steam plant and other machinery equipment.

Address
NORTH CAROLINA COTTON OIL CO.
CHARLOTTE, N. C.

FOR SALE.

- 2 1/2 horsepower Fairbanks, cost \$185.00...\$50.00
8 horsepower Fairbanks.....\$250.00
25 horsepower Fairbanks.....\$550.00
6 horsepower Otto.....\$250.00
10 horsepower Otto.....\$275.00
13 horsepower Lambert.....\$375.00
60 horsepower New Era.....\$500.00
68 horsepower Foss, cost \$2000.00.....\$500.00
Guaranteed to be in perfect working order.
New Backus gas and gasoline engines, positively the best engine built at reasonable prices and on long time. I buy, sell or exchange gas and gasoline engines.

J. H. JOHNSTON,
22 S. Canal St., CHICAGO ILL.

WANTED TO PURCHASE.

One 8 1/2 in. by 10 in. double cylinders and double drum hoisting engine without boiler.

Address,
P. O. BOX 798,
New Orleans, La.

For Sale—Machinery.

Hoisting engines, pile drivers, steam dredges, steam shovels, locomotives, dump cars, flat cars, relaying rail, engines, boilers, pumps, air compressors, rock drills, channelers, stone crushers, concrete mixers, road rollers, grading and ditching machines, wheel scrapers, traveling derricks, cableways, wire cable, etc. Send for list of bargains in machinery just issued.

WILLIS SHAW,
710 New York Life Building, Chicago.

Engine Lathes.

New and Rebuilt.

- | | | |
|------------|---------|---------|
| 32"x15' | 28"x14' | 22"x14' |
| 22"x8 1/2' | 20"x10' | 20"x9' |
| 19"x8' | 18"x10' | 16"x8' |
| 3-18"x6' | 16"x8' | 16"x6' |
| 16"x5' | | 14"x6' |

Plain Horizontal Engines.

Suitable for Brickyards or other purposes.

- | | |
|---------------|-------------------|
| 20"x30" R. H. | 16"x24" L. H. |
| 15"x24" L. H. | 12 1/2"x24" R. H. |
| 12"x24" L. H. | 12"x20" R. H. |
| 10"x24" L. H. | 10"x14" R. H. |
- Automatic Engines, 200 to 2 H. P.

Lathes, Planers, Shapers, Drills.

Carlin Machinery Supply Co.

Lacock and Sandusky Sts.
ALLEGHENY, PA.

BARGAINS FOR QUICK DELIVERY.

- No. 2 Gates Crusher.
No. 3 Gates Crusher.
No. 5 Style B. Gates Crusher.
Double column Drop Hammer, cylinder 14"x36", fine order.
Good Second-Hand Engines.
12-ton Kelly Roller, fine as new.
New Well Drilling Machine, cheap.
Marion AA Shovel, fine condition.

WE SELL

Engines, Boilers,
Pumps and Quarry
Supplies,
Concrete Mixers,
Horse Rollers,
Steam Drills,
Air Compressors,
Belting, Hose,
and a full line of
Contractors' Supplies.

CONTRACTORS' SUPPLY & EQUIPMENT CO., 232 Fifth Avenue, CHICAGO.

GAS ENGINE.

We have for sale an 80 H. P. Standard two cylinder Engine, specially designed for Electric Light use.

Engine is practically new and price very low.

THE F. BISSELL CO., 150 Huron St., Toledo, Ohio.

For Sale—Delivery Jan. 1, 1904.

- Two Friction Rope Haulage Machines, 300 and 250 H. P. respectively.
Four miles, one inch, seven strand wire rope.
One 600 light, G. E. Generator and Switchboard.
One 75 H. P. Harrisburg Engine, all complete.
200 ft. 10 in. wrought iron pipe.
This machinery all in splendid condition and has only been in use about two years. Reason for selling, not large enough to handle tonnage, and are replacing with heavier.
For further information apply
COLLINS COLLIERY CO.
Glen Jean, W. Va.

FOR SALE.

- 1 300 H. P. Cross compound Slater engine, \$3000.
1 18x12 Harris Corliss, overhauled, \$1200. 1 12x36 Corliss, overhauled, \$750. 1 12x18 Skinner engine, \$300. 1 34x72 George Corliss, with balance wheel, \$600 per H. P. 1 30x72 George Corliss, with balance wheel, \$600 per H. P. 1 24x48 Woodruff & Beach, automatic, \$500. 1 20x60 George Corliss engine, \$1200. 1 10x24 Ryder, automatic, \$150. 1 6x8 Fitchburg, vertical, \$85. 1 iron stack, 52x30, \$150. 1 Corliss, segment wheel 16x60" face. 1 hydraulic press, 8" rams, 48x36" platens. 1 300 to 400 H. P. quill, practically new, including boxes. 2 tanks, 9" diameter, 8" deep, 3/4 shell, \$85 each. 1 400 H. P. Berryman heater, \$150. 1 100 H. P. Berryman heater, \$75. 1 75 H. P. National heater, \$50. 1 75 H. P. National heater, \$50. Lot of pulleys, 6" to 16" diameter. 1 400 H. P. Knowles jet condenser, \$350. 1 250 H. P. Deane condenser, \$200. 5 72"x18" H. K. T. boilers, first-class condition, without fittings, \$200 each.

F. H. DAVIS & CO., 53 State St., Boston, Mass.

Baker, Stillwell & Hart

Manufacturers' Agents,

Room 421 Chalfoux Building,
BIRMINGHAM, ALABAMA.

- | | | |
|---------------|-------------------|--------------|
| Pig Iron, | Rails, | Fire Brick, |
| Bar Iron, | Nuts and Washers, | Rabbit Metal |
| Coal, | Bolts, | Tool Steel, |
| Coke, | Nails, | Engines, |
| Steel Shapes, | Foundry Supplies, | Boilers, |
| Cars, | Car Wheels, | Castings, |
- Second-hand Machinery of all kinds.

FOR SALE.

Door, Sash & Blind Machinery.

1 E. B. Hayes Machine Co. Door Sticker. 1 E. B. Hayes Machine Co. Sash Rail and Stile Sticker. 1 E. B. Hayes Machine Co. Sash Bar Sticker. 1 Greenlee Bros. & Co. Sash and Blind Relisher and Mortiser, without Blind Routing Attachment. 1 H. B. Smith Machine Co. Improved Sash Clamp. 1 Diagonal Planer.

CYPRESS LUMBER CO.
Apalachicola, Fla.

150 Horse Power Boiler, Upright Tubular.

In fine condition. Too small for our use. Must dispose of it quickly. Need the room.

APPLY AT

THE WM. POWELL CO.

2525 Spring Grove Avenue,

Cincinnati, Ohio.

FOR SALE.

- 1 22x52 R. H. Watts Campbell Corliss Engine.
1 10x12 Ideal Automatic Engine.
1 10x7x10 Worthington Duplex Pump.
1 15 ton Road Roller for sale or rent.
1 Little Giant Steam Shovel.
1 10x7x10 Worthington Duplex Pump.
Iron Tanks, 300 to 1000 gallon capacity.

JAS. S. BRADEN, 26 Cortlandt St., New York.

FOR SALE CHEAP.

Several Dynamos, Motors, Engines, Boilers, Pumps, Steam Traps, Damper Regulators, Iron Pulleys, Shafting, Etc. Practically good as new. Get our figures before buying elsewhere. We can beat 'em all on prices.

American Electric Supply & Mfg. Co.,
27 Thames St., New York City.

OUR BARGAIN PAGE.

"In time of heat prepare for cold." We shall devote a considerable portion of this week's issue in calling your attention to our facilities for making you prompt delivery at extremely low prices, of considerable material in the heating line. Don't wait until the last moment to supply your business places with necessary equipment for keeping a degree of comfort about your employees.

In the good old summer time such material can be bought very reasonable. After awhile there will be an enormous demand for it, and then we will get more money for it. All prices quoted are for prompt delivery.

HEATING PLANTS.

We solicit inquiries for heating apparatus of every kind. Give us space to be heated and full information, and we will be pleased to quote you a proposition on a complete heating plant.

HEATING BOILERS—FOR LOW SERVICE.

Good for 60 pounds pressure. We give you a short list of them, although we can furnish you with several others, and besides have quite a stock on hand of high-duty ones.

- 787. 60x16 horizontal tubular, 98 3/4 in. tubes.
- 696. 58x14 horizontal tubular, domeless.
- 698. 58x12 horizontal tubular.
- 1110. 48x8 horizontal tubular.
- X 543. Open bottom locomotive fire box, 36x12.
- 2335. 54x12 horizontal tubular.
- 2450. 54x16 horizontal tubular.
- 2077. 44x10 horizontal tubular.
- 670. 54x15 horizontal tubular.
- 1645. 2 48x13 ft. 6 in. locomotive fire box.
- 525. 48x16 horizontal tubular.
- 1983. 48x10 horizontal tubular.
- 1904. 72x30 horizontal tubular.
- 1905. 72x18 horizontal tubular.
- 530. 64x18 horizontal tubular.
- 1173. 48x17 horizontal tubular.
- 1267. 60x18 horizontal tubular.
- 481. 60x16 horizontal tubular, domeless.
- 1905. 2 42x12 open bottom fire box.

HOT-BLAST APPARATUS.

- 1 3000 ft. Sturtevant hot-blast apparatus, complete with direct-connected engine and fan.
- 1 4000 ft. Sturtevant hot-blast apparatus, complete with direct-connected engine and fan.
- 1 1600 ft. belt-driven Sturtevant hot-blast apparatus.

CAST-IRON HEATERS.

- 2 second-hand Barnard & Lees, 11 section. Fire box 36x22 in. Capacity 1400 ft. Price each, \$120.
- 2 "Hecia" steam heaters. Capacity 1000 ft. each. Price each, \$140.
- 1 "Mott" cast-iron hot-water heater, 2200 ft. Price \$300. Besides several smaller heaters.

RADIATION.

- 50 pipe coils, containing from 25 to 100 sq. ft. of heating surface. Price per sq. ft. of heating surface, 14 1/2 cts.
- 75 box coils, from 25 to 200 sq. ft. of heating surface in each. Price per sq. ft. of heating surface, 15 cts.
- 250 pipe radiators, in heights from 18 to 54 in., containing from 22 to 225 sq. ft. each. Price per sq. ft. of heating surface, 15 1/2 cts.
- 40,000 sq. ft. of cast iron second-hand radiation, all patterns, 2 and 3 column, for steam and water. Price per sq. ft. of heating surface, 17 cts.

RADIATOR VALVES.

We offer you Jenkins disc, new, nickel-plated radiator valves as follows:

- 500 1 1/4 inch, without unions. Price each, 72 cts.
- 250 1 1/2 inch, without unions. Price each, \$1.10.
- 175 2 inch, without unions. Price each, \$1.45.
- 200 1 1/2 inch, with unions. Price each, \$1.40.
- 100 2 inch, with unions. Price each, \$2.

A stock of corner radiator valves, all sizes, without unions. Discount, 50 per cent. off standard list. With unions, 85 per cent. off standard list.

Air valves, per dozen, \$1.

PIPE.

Our stock of good standard black second-hand pipe, with guaranteed threads and couplings, as follows:

- 120,000 ft. 1 inch, per foot.... 3 1/4 cts.
- 40,000 ft. 2 inch, per foot.... 7 1/4 cts.
- 140,000 ft. 2 1/2 inch, per foot.... 10 cts.
- 40,000 ft. 1 inch, EXTRA HEAVY, per foot, 4 cts.
- 50,000 ft. 1 1/4 inch, EXTRA HEAVY, per foot, 5 1/4 cts.
- 800 ft. 3 inch, with flanges, per foot... \$.70.
- 400 ft. 10 inch, with flanges, per foot... 1.10.
- 1800 ft. 12 inch, with flanges, per foot... 1.45.
- 1400 ft. 14 inch, with flanges, per foot... 1.75.
- 600 ft. 16 inch, with flanges, per foot... 2.00.
- 200 ft. 18 inch, with flanges, per foot... 2.25.

WROUGHT-IRON CASING.

Second-hand, THREADED ENDS AND SCREWED COUPLINGS:

- 3 1/4 inch, per foot, 9 cts.
- 4 inch, per foot, 13 cts.

Fitted with EXPANDED CAST-IRON FLANGES AND BOLTS:

- 2 1/2 inch, per foot, 4 1/2 cts.
- 3 1/2 inch, per foot, 10 cts.
- 4 inch, per foot, 13 cts.

10,000 ft. 3 inch GALVANIZED SPIRAL RIVETED, per foot, 7 cts.

CURVED PIPE.

We have in stock two carloads of heavy standard black pipe fitted with cast-iron riveted flanges, which is curved from 1/4 to 1/2;

sizes 8, 10, 12 and 14 inch. It is in good condition, and will be sold at low prices.

REGISTERS.

Brand new black japanned registers and ventilators.

CIRCLE TOP:

- 300 7x10, each 18 cts.
- 200 10x14, each 25 cts.
- 200 11x13, each 30 cts.

SQUARE REGISTERS:

- 225 9x9, each 20 cts.
- 125 14x13, each \$1.
- 125 17x7, each 20 cts.
- 120 6x8, each 20 cts.

Also faces, borders, etc.

MASON'S FRUIT JARS.

5000 gross for sale. We purchased them direct from the manufacturers. Some of them are slightly shopworn, but as a general rule they are in first-class condition, and we could make prompt delivery. They consist of about

- 3000 gross quarts.
- 2000 gross pints.

Prices and full information on application.

LANTERNS.

750 dozen No. 10 tinued tubular lanterns in original cases, and in strictly first-class condition. Price per dozen, \$2.95.

SCREW-DRIVERS.

30 gross of all-metal, nickel-plated combination screw-drivers with hammer heads. Price per gross \$6.

AXES.

2500 dozen single-bitted axes, steel, polished, painted black, assorted patterns to the case and assorted weights ranging from about 3 1/4 to 4 1/2 lbs. Price per dozen, \$3.25.

PLUMBING MATERIAL.

We carry a complete stock of brand new plumbing material, which we can furnish you complete in every way. Can sell you a water-closet combination with all necessary equipment above floor for \$9; a bathtub for \$15; sinks for \$1 each; lavatories at \$6.50 each.

TWINE AND CORD.

Two carloads of new, shopworn material. State your requirements and we will mail you samples and quote you right prices.

STEEL BUILDINGS.

If you are interested in the purchase of a steel structure, will be glad to have you advise us of your requirements. We are in position at this time to furnish the necessary material to construct several buildings. We can furnish you drawings and information on application.

RELAYING RAILS.

We have in stock over 20 cars of light new and relaying rails, 8, 12, 16, 20 and 25-pound. For immediate shipments can quote extremely low prices.

STRUCTURAL MATERIAL.

In connection with our purchase of the Pan-American Exposition and of other large buildings, we are always in position to make prompt shipment on structural iron and steel of every kind. We issue a stock-list from time to time, which we mail on application.

FIRE-ESCAPES.

10 sections of fire-escapes with platforms complete. Sketch on application.

DUMP CARS.

40 dump cars, 24 and 36 gauge. Price each, \$30.

WIRE ROPE.

The following wire rope, second-hand, in good condition, for prompt acceptance:

- 3000 ft. 3/4 inch, per foot.... 4 1/2 cts.
- 2700 ft. 1/2 inch, per foot.... 7 cts.
- 1000 ft. 1 inch, per foot.... 9 cts.
- 1200 ft. 1 1/4 inch, per foot.... 10 cts.
- 1400 ft. 1 1/2 inch, per foot.... 11 cts.

MANILA ROPE.

Second-hand, in good condition, from 3/4 to 2 inch. Per pound, 7 cts.

NEW SISAL ROPE.

3/4 to 1 1/4 inch. Per pound, 8 cts.

STEEL SLEDGES.

Purchased a carload of them at manufacturers' Sale. They are brand new. Our stock consists of the following:

- STONE SLEDGES from 6 to 27 lbs.
- STRIKING SLEDGES, 5 to 22 lbs.
- BLACKSMITHS' SLEDGES, STRAIGHT PEIN, 5 to 26 lbs.
- BLACKSMITHS' SLEDGES, CROSS PEIN, 6 to 16 lbs.
- BLACKSMITHS' SLEDGES, DOUBLE FACE, 5 to 18 lbs.

TURNING SLEDGES, 6 to 10 lbs.
SPALLING HAMMERS, 8 to 21 lbs.
STRIKING HAMMERS, 2 to 4 1/2 lbs.
PRICE PER POUND, 5 cts. Send us sample order.

BOLTS.

A carload of brand new round and square head bolts, mixed, all sizes. They range up to 24 inches in length and from 3-16 to 1/2 inch diameters. Price in lots, per pound, 2 1/4 cts.

SHOVELS.

300 dozen "second" quality solid and hollow back long and "D" handle shovels. Per doz., \$3.10.

TELEPHONE EQUIPMENT.

A large number of long-distance good second-hand 'phones, rebuilt and in first-class condition. For \$17.50 we will supply you with 2 of our high-grade 'phones, complete with batteries and all necessary equipment to erect a line 2 miles in length. Full directions will accompany shipment, so that anybody can install the line.

Also switchboards and equipment of every kind.

INCANDESCENT LAMPS.

We are still offering absolutely new lamps; voltages from 100 to 115; candle-powers from 8 to 25.

- Edison base, each 9 1/4 cts.
- T. H. base, each 10 1/4 cts.

FIRE HOSE.

40,000 feet 2 1/2-inch cotton rubber-lined guaranteed hose, with couplings. Price per 50-foot length, \$15. Many other kinds of hose for sale. Advise us your needs.

SHAFTING.

Several cars of second-hand straight steel shafting, ranging from 1/4 to 4 1/2 inch. Our price will mean a considerable saving to you. Also hangers, couplings, boxes, collars, etc.

IRON PULLEYS.

We are offering sizes from 6 to 42 inch diameter, any face, at a discount of 75 per cent. from standard list. Our second-hand pulleys are in first-class condition, and as good as new.

WOOD-SPLIT PULLEYS.

A large quantity of large-size wood-split pulleys, ranging from 36 to 96 inch diameter, in all faces, which we offer at 82 1/2 per cent. off the list, subject to immediate acceptance. Send us your order.

LEATHER BELTING.

Still on hand a quantity of extra high-grade rebuilt second-hand leather belting, which we guarantee to give satisfaction, or can be returned at our expense.

- 6 inch double, per foot..... \$.56
- 8 inch double, per foot..... .80
- 10 inch double, per foot..... .90
- 12 inch double, per foot..... 1.00
- 16 inch double, per foot..... 2.75

LACE LEATHER.

We have in stock quite a stock of new rawhide cut lace leather. 5-16 inch, price per 100-foot package, 40 cts.

ANVILS.

A great many anvils in stock, new ones, ranging in weights from 100 to 200 lbs., which we are selling in cast iron, per pound, 5 cts., and wrought iron, per pound, 6 1/2 cts.

STEEL ROOFING AND SIDING.

A large quantity of No. 20 and No. 22 gauge second-hand corrugated sheets painted black two sides, free from nail holes. Price per square, \$2.45.

Also a quantity, same as above, with occasional nail holes, suitable for siding. Price per square, \$2.10.

1000 squares of No. 23 galvanized corrugated full size new roofing. Per square, \$3.55.

2000 squares IMITATION BRICK PRESSED STEEL SIDING. Per square, \$2.40.

800 squares of PRESSED STEEL CEILING. Per square, \$3.40.

PREPARED FELT ROOFING.

2-ply "Eagle" brand felt. Per roll, \$1.15.
3-ply "Eagle" brand felt. Per roll, \$1.35.
VULCANITE asphalt roofing. Per roll, \$1.50.
Other grades also.

GALVANIZED SHEETS.

A carload of new galvanized sheets, miscellaneous sizes, gauges 18 to 22. Per pound, 3 cents.

BLACK SHEETS.

Four carloads of miscellaneous size black sheets from 16 to 24 gauge.

HORSESHOES.

Our stock of new perfect horseshoes ranges in size from 0 to 8 fronts and hinds, in all shapes and weights, steel and iron. PRICE PER TON, \$52.

300 kegs MULE SHOES, Nos. 4 and 5. Price per ton, \$42.

HORSESHOE NAILS, sizes 5 to 9. Price per pound, 7 1/2 cents.

BOILERS.

Our stock of boilers is the largest we have found anywhere on earth. Write us your requirements.

ENGINES.

See list in last week's issue.

ROCK DRILLS.

- 1 1 1/4" Bullock Monarch drill, fitted for air or steam.
- 4 2" Bullock Monarch drills, fitted for air or steam.
- 2 2 1/4" Bullock Monarch drills, fitted for air or steam.
- 4 3 1/2" Bullock Monarch drills, fitted for air or steam.
- 1 U-A Sullivan for air.
- 2 U-O Sullivan for steam.
- 3 U-E Sullivan for steam.
- 1 U-E No. 2 Sullivan for steam.
- 7 3 1/2" Rand "Little Giant."
- 3 3 1/2" Rand "Little Giant."
- 2 3 1/2" Rand "Little Giant."
- 1 2 1/2" Ingersoll for steam.
- 3 3 1/2" Ingersoll for steam.
- 3 3 1/2" Ingersoll for steam.
- 3 3 1/2" Ingersoll for steam.
- 1 Bullock Champion diamond prospecting core drill, with complete outfit, boiler and pump.
- 1 Sullivan "M" diamond prospecting core drill, with complete outfit, boiler and pump.
- 1 Sullivan "E" diamond prospecting core drill, with complete outfit, bit set with eight (8) pieces of carbon.

MISCELLANEOUS MACHINERY.

- 1 No. 9 Sturtevant blower.
- 1 No. 7 Sturtevant blower.
- 1 No. 6 Sturtevant pressure blower.
- 1 No. 5 Buffalo pressure blower.
- 1 20x8 6-head turret lathe, hollow spindle.
- 4 250 H. P. separators and purifiers.
- 5 6x8 double-drum double-cylinder hoisting engines and boilers.
- 7 6 1/2x8 double-drum double-cylinder hoisting engines and boilers.
- 1 10x12 double-cylinder single-drum Lidgetwood, without boiler.
- 1 15 H. P. combined hoisting engine and boiler.
- Foot-power lathes, all sizes. Machine tools of every description. Woodworking machinery.
- 24x12x24 steam-driven straight-line compressor.
- 20x12x24 National compressor.
- 12x12 Snyder-Hughes belt-driven compressor.
- 6x6x10 vertical compressor.
- 7x8x8 duplex vertical compressor.
- 1 7x7 Clayton.
- 1 screw punch, hand-power.
- 1 power milling machine.
- 1 Universal gear-cutter.
- 1 Universal keyseating machine.
- 3 Baker blowers, 15" inlet, 15" outlet.
- 1 Root blower, 10" inlet, 10" outlet.
- 1 hand-power hoisting sidewalk elevator.
- 1 24" Lafell wheel.
- 1 15", 16", 19" vertical drill press.
- 1 wire straightener.
- 1 vertical belt-driven 9-ton crane. Write for particulars.
- 5 worm-gear belt-driven elevators.
- 2 Reedy steam-driven elevators, 2 Crane and 1 Elthroppe.
- 3 double buffing stands.
- 1 belt-driven power hammer.
- 1 26" slotter.
- 15 belt tighteners, various sizes.
- 42x8 1/2 steel tanks. Smaller tanks of all sizes.
- 2 12" vertical centrifugal pumps.
- 1 12" horizontal centrifugal pump.
- 1 12" horizontal sand pump.
- 1 6" sucker.
- 3 18x12x18 single Davidson pumps.
- 3 16x10x10 Worthington duplex.
- Pumps of all sizes and for all duties.
- 2 electric elevators, complete, with 15 H. P. Keystone motors.
- 4 passenger elevator cages.
- 9x16 Groton crusher, with elevator and screen complete.
- 1 1000 H. P. Berryman copper-tube heater.
- 1 800 H. P. Berryman copper tube.
- 1 400 H. P. Erie City.
- 1 300 H. P. Walnwright.
- 1 250 H. P. Walnwright.
- 3 150 H. P. Berryman.
- 3 100 H. P. Baragwanath.
- 1 50 K. W. Westinghouse alternator.
- 1 50 K. W. Fort Wayne alternator.
- 1 45 K. W. Edison Bi-Polar direct.
- 1 30 K. W. Edison Bi-Polar direct.
- 1 20 K. W. Edison Bi-Polar direct.
- 1 Ingersoll-Sargeant under-cutter.

A copy of Catalogue No. 239 will be sent on application.

CHICAGO HOUSE WRECKING CO.

W. 35th and Iron Streets,

CHICAGO.

FOR SALE.

Two (2) Blake Compound Condensing Duplex Pumps Complete, size 14x24x24x24.
One (1) Vertical Deep Well Pump (Dean) 18x12 x24.
One (1) Rand Drill Company Air Compressor, size 16x18x24, Meyer Valve Gear. Address

HAUBTMAN & LOEB CO., Ltd.
NEW ORLEANS, LA.

SAW MILL.

Seven Fay No. 2 Centennial 24-in. planers; one 32-in. Egan No. 1 automatic knife grinder; one 24-in. planer, L. Power & Co.; one 17x12 Allfree automatic engine; two 60 H. P. boilers; two 80 H. P. boilers; one 5x7 hoisting engine with boiler and drum; several thousand feet 3/4 and 1/2 steel rope, shafting, pulleys, hangers, belts; dust arrester, feed water heater, dynamo, several engines, etc. Address STONY CREEK LUMBER CO. TACOMA, WA.

D Handle Machinery, Lathe, Jointer, Backer, Punch, &c. Also Excelsior Plant, 6 Machines, Baler, Cross-cut Saw, 40 h.p. Engine and Boiler, Pump, Heater, Line Shafting, Belting and Pulleys.

Address W. R. SMITH,
Care Smith Bros. Union City, Ind.

WANTED—125 to 150 H.P. second hand Corliss engine. Address, giving make, age and best price, **SPRAY WOOLEN MILLS CO.** Spray, N. C.

FOR SALE.**36" Gauge Equipment.**

3 Locomotives, Mogul Type, in good condition, one 12"x16" Cylinder and two 13"x18" Builder, H. K. Porter. A lot of Box Cars. All for delivery in June or July.

3 Passenger Coaches.
1 Combination Baggage and Passenger Coach. Immediate Delivery.

Standard Gauge.

We also offer, for immediate delivery, second-hand standard gauge Locomotives from 13" to 18" cylinders, American and 10-Wheel Type. Relaying Rails.

SAVANNAH LOCOMOTIVE WORKS & SUPPLY COMPANY,
Savannah, Ga.

For Sale—Rails and Locomotives.

One 20x24 Baldwin consolidation.
One 19x24 American type.
Two 15x24 American type.
One 18x24 Mogul.
One 16x24 Mogul.
Three 17x22 six-wheel switchers.
Five 12x14 Forney type.
One 12x16 Forney type.
One 9x14 four-wheel.
One 12x22 four-wheel saddle tank.
One 12x18 four-wheel, with front truck, trailing tender. All standard gauge.

In 3-ft. gauge Locomotives we have:

One 12x18 Forney type.
One 9x14 six-wheel saddle tank, with fuel tender.
One 7x12 four-wheel saddle tank.
One 8x16 four-wheel saddle tank.
Also new and relaying rails of all weights. Write us for prices and terms.

BIRMINGHAM RAIL & LOCOMOTIVE CO., Birmingham, Ala.

N. Y. Elevated R. R. LOCOMOTIVES

Ready for Immediate Delivery.
Excellent Condition.

4' 8 1/2" Gauge, Forney Type, Cylinders 11"x14," 11"x16," 12"x16."

Suitable for Logging Roads, Contractors, Switching, &c.

BENJAMIN WATSON,
(Coffee Exchange Bldg.)

66 to 70 Beaver Street, N. Y. CITY.

Steel Rails, Cars, Locomotives, R. R. Supplies.

FOR SALE.**New Light Steel Rails,**

ALL WEIGHTS,

WITH

Track Fastenings.

THE STEEL RAIL SUPPLY CO.

100 Broadway,

NEW YORK, N. Y.

RAILS FOR SALE.

Immediate Shipment.

500 tons 80-lb. Relaying Steel Rails with Angle Splices, Pennsylvania delivery.
800 tons 60-lb. Relaying Steel Rails with Angle Splices, Indiana delivery.
500 tons 40-lb. Relaying Steel Rails with Angle Splices, Ohio & Penna. delivery.
700 tons 70-lb. Relaying Steel Rails with Angle Splices, Ohio delivery.

Also NEW 16, 20, 25, 30 lb. Rails for prompt shipment.

We BUY good Relaying Rails for cash. Write us if you have any to offer.

HYDE BROS. & CO.

503 German Natl. Bank Bldg. PITTSBURG, PA

NEW RAILS.

12,500 tons New Steel T Rails, 60, 70, or 80 lbs. per yard. July and August delivery.

Railroad Construction.

Steam and Electric Roads
Built and Financed.

JUSTICE COX, JR., & CO., LIMITED,

552-554 Bullitt Bldg., Philadelphia.
156-158 Broadway, New York City.

FOR SALE.

Several Narrow Gauge Engines 10 to 20 tons; also standard from 40 to 60 tons. 1 16x24 Switcher in splendid condition. Stationary Boilers and Engines. 1 Perkins Shingle Machine as good as new. Agent for the Russell Wheel and Foundry Co. Cars. Also the Parker Steam Skidder.

J. H. MACLEARY & CO.
Suffolk, Va.

J. E. FRANKS

SAVANNAH, GA.

RAILS, CARS and LOCOMOTIVES, FROGS,
SWITCHES, Etc.

FOR SALE.

9 Box Cars, 54 ft. long, 60,000 lbs. capacity. 1 200 H. P. Hamilton Corliss Engine. 400 tons 56 lb. and 60 lb. steel re-layers with splices. 350 ton 67 lb. steel re-layers and splices. 300 tons 30 lb. steel re-layers and splices, for South Carolina delivery. Also New Rails, 8 lbs. to 40 lbs.

L. WOLF & BRO.,

50-51-52 Mitchell Bldg., CINCINNATI, OHIO.

FOR SALE.

Four (4) 18"x22" Cylinder Baldwin, ten-wheel Freight Standard Gauge Locomotives, weight about 42 tons; six drivers, 50" diameter; separate eight-wheel tender.
One (1) 14"x22" Cylinder, Baldwin six-wheel Locomotive (four drivers 50" diameter, pony truck in front, with separate eight-wheel tender).
Twenty (20) Flat Cars, 30' long, 20 tons, capacity, Diamond Trucks, M. C. B. Automatic Couplers, hand brakes.
Twelve (12) Coaches, 51' over all; carry 54 passengers; good coaches; cheap.
Two (2) Baggage Cars, same length; carry 28 passengers; all equipped with Westinghouse Air Brakes.

NEW YORK EQUIPMENT COMPANY,


18 Broadway (Room 526), New York.

**LOCOMOTIVES
STEAM SHOVELS
CARS**

6 American type 30-40 tons, Std. Gauge; 2 10-wheeler type 40-50 tons, Std. Gauge; 1 Consolidation type 55 tons, Std. Gauge; 2 Switching type 30-40 tons, Std. Gauge; 3 9x14" cyls. S. T. 12 tons, 36" Gauge
1 Marion G, 2 1/2 yard; 1 Vulcan, 2 yard (new); 2 Southern 2 yard; 1 Marion AA 1 3/4 yard, others; 2 45 ton Bucyrus, 1 1/2 yard.

APEX EQUIPMENT CO.

7-9 Broadway, N. Y.



B. F. STURTEVANT COMPANY
BOSTON, MASS.
NEW YORK
PHILADELPHIA
CHICAGO
LONDON

LOCOMOTIVES

For all Classes of Service.

CARS — COACHES**SPECIAL**

40 to 50 ton Moguls—40 to 51 inch centers.
50 ton Baldwin Eight Wheelers.
60 ton Baldwin Consolidations.
30 ton Consolidations—31 inch centers.
Passenger Coaches—excellent condition.
Immediate delivery.

FITZ-HUGH—LUTHER CO.

Successors to Fitz-Hugh & Co.

NEW YORK, 141 Broadway.

Main Office, CHICAGO, Monadnock Block.

**LOCOMOTIVES,
COACHES
AND
CARS**

of all descriptions.

F. M. HICKS,
277 Dearborn St.
CHICAGO.



HICKS LOCOMOTIVE AND CAR WORKS.



SOLE MANUFACTURERS OF **FRED G. WEIR'S**
IMPROVED RIGID & SPRING FROGS, CROSSINGS
SINGLE & THREE THROW SPLIT SWITCHES.
FIXED & AUTOMATIC SWITCH STANDS. STEEL
DIE FORMED RAIL BRACES, SWITCH FIXTURES, ETC.

CABLE & ELECTRIC
TRACK WORK
FROGS, SWITCHES
CROSSINGS, CURVES
RAIL CHAIRS
ETC.

FOR SALE.

We own a choice lot of
RELAYING
25 lb. and 30 lb. STEEL RAILS
and Splice Bars and Spikes for same. Also a
number of Frogs, and Stub and Split
SWITCHES.

If you want to buy either new or re-laying
Rails—any weight, or Switches, write us.

ROBINSON & ORR,

419 Wood Street, Pittsburgh, Pa.



MANUFACTURERS

Light Steel Rails

16-20-25-30-35 and 40 lbs. per yard.

Prompt shipment on all orders.

SCHONTHAL IRON & STEEL CO.

Mills and General Offices,

CUMBERLAND, MD.

LOCOMOTIVES.

50-ton Freight and Switch Engines
for prompt delivery.

RAILS AND CARS.

MAY & SPALDING,
ATLANTA, GA.

FOR SALE.

NEW STEEL RAILS.

12, 16, 20, 30, 35 and 40 lbs., with splice bars,
bolts and spikes. Immediate shipment from stock.

JOHN J. HAMEL & CO.

House Building, Pittsburgh, Pa.

Alabama Frog & Switch Co.

ANNISTON, ALA.

Manufacturers of

Railroad Crossings, Frogs,

Switches, Switch Stands, Rail Braces, Etc.

NEW LIGHT STEEL RAILS.

12 lb. to 40 lb. per yard and Splices.
New Heavy Sections to 80 lb.
Narrow Gauge Railway Equipment,
Cars, Locomotives, Switches, etc.

WONHAM & MACOR,

Columbia Building, NEW YORK.

FOR SALE.

Four miles 30-lb. Steel, with angle joints; two-
thirds never used, rest lightly.
Little Giant Crane Traction Shovel, 1½.
Western all steel Road Grader.
New Era Sr. Steel Level Grader.

THE MALES CO.

256 Broadway, NEW YORK CITY.

FOR SALE—RELAYING RAILS.

1000 tons 40-lb. Steel Relaying Rails and Splices.
1500 tons 58-lb. Steel Relaying Rails and Splices.
1000 tons 60-lb. Steel Relaying Rails and Splices.
500 tons 63-lb. Steel Relaying Rails and Splices.
For Prompt Shipment.

Continental Iron & Steel Co.
25 Broad St., New York.

FOR SALE.

Six New Vertical Boilers.
One R. T. Boiler, 72"x16", 125 lbs. pressure.
Two Locomotive Boilers, 175 H. P.
Two Locomotive Boilers, 150 H. P.
Two New Vulcan Locomotives, 9214.
One 72"x18" R. T. Boiler, used only 5 weeks.

J. C. SAXTON,

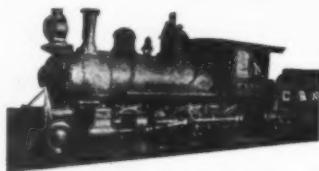
18 Broadway, New York City, N. Y.

Relaying Rails For Sale.

IMMEDIATE DELIVERY.

250 tons 52-lb. Steel Tee Rails with
Angle Plates.
1000 tons 58-lb. Steel Tee Rails with
Angle Plates, Tidewater delivery.

GEORGE H. CAREY, 1 Broadway, New York.



BOWEN & STREET EQUIPT. CO.

HAVE FOR SALE

30 STANDARD AND NARROW GAUGE LOCOMOTIVES

for contractors' plant, lumber and min-
ing railways, and over 200 flat, box and
logging cars, coaches and large quanti-
ties of new and second-hand rail; also
Steam Skidders; low rates to all points
south.

OFFICE: 301-307 NEW ATLANTIC BLDG.,
NORFOLK, VA.

SHOPS AT Suffolk, Va.

FOR SALE.

Five American Type Standard Gauge LOCOMOTIVES.

IN EXCELLENT CONDITION.

2 17"x24" Taunton Make.

2 16"x22" Baldwin Make.

1 17"x22" Mason Make.

We are offering these locomotives at a very
low figure being desirous of moving them quickly.
If you are in the market for equipment of this
kind we would be pleased to have you write us
for specifications and photographs.
Correspondence solicited.

CAINE & PLITT,

1406 Real Estate Trust Building,
PHILADELPHIA, PENNA.

Long Distance 'Phone.

Locomotives for Sale.

One 18x24 eight-wheel, 45 tons, first-class condi-
tion, St. Louis delivery.
One 15x24 eight-wheel, 43 tons, just out of shops,
Parsons, Kansas, or St. Louis delivery.
One 16x22 four-wheel, 28 ton switcher, good con-
dition, St. Louis delivery.
One 17 ton Shay Geared Locomotive, just over-
hauled, Arkansas delivery.

RAILS.

350 tons first-class 52-lb. Steel Relays, Seligman,
Mo.

CARS.

Two Combination Cars and two Coaches.
One Holman Track Laying Machine.
100 40,000 capacity Box Cars, with air brakes, good
condition.
50 40,000 capacity Refrigerator Cars, with air
brakes, good condition.

ALFRED C. REYNOLDS,

510 Houser Building, ST. LOUIS, MO.

RAILS 8 to 40 lb. new steel Relays, all
weights.
LOCOMOTIVES 8 to 60 tons,
Standard and
EQUIPMENT and Supplies of all
kinds.

WESTERN SUPPLY & MFG. CO.

East St. Louis, Ill.

RAILS—LOCOMOTIVES.

400 tons 35 and 40-lb. steel relay rails.
Locomotives—Narrow and standard gauge. 50
locomotives on hand.

Southern Iron and Equipment Co.
ATLANTA, GA.

MANUFACTURERS

Light Steel Rails,

12, 16, 20, 25, 30 and 35 lbs. with splices.
Prompt delivery.

Maryland Rail Co.

CUMBERLAND, MD.

For Sale—RAILS.

53 tons 45-lb. New Steel T Rails and Splices.
27 tons 75-lb. New Steel T Rails and Splices.
15 tons 70-lb. New Steel T Rails and Splices.
100 tons 30-lb. New Steel T Rails and Splices.
20 tons 30-lb. New Steel T Rails and Splices.
200 tons 16-lb. New Steel T Rails and Splices.
50 tons 12-lb. New Steel T Rails and Splices.
20 tons 8-lb. New Steel T Rails and Splices.
400 tons 60-lb. Relaying. 150 tons 70-lb. Relaying

RICHARDSON & CO., Inc.
200 Ninth Street, PITTSBURGH, PA.

SECOND-HAND

Locomotives

64 TON BALDWIN STANDARD GAUGE WITH TENDER.

Cylinders 15x24".
2 drivers on each side 60" diam.
Tires 1½" thick.
Wheel base, 7' 6".
1 set 4 wheel trucks under front end.
No brake.

40 TON BIG FOUR STANDARD GAUGE WITH TENDER.

Cylinders 14x22".
2 drivers on each side 47" diam.
Tires 1½" thick.
Wheel base 7'.
Steam brake.

35 TON BROOKS MOGUL STANDARD GAUGE WITH TENDER.

3 drivers on each side 41" diameter.
Tires 2 9-16" thick.
Cylinders 13/16x18".
Air Brakes.

6 TON RYAN & McDONALD 30" GAUGE SADDLE TANK.

Cylinders 7½x10".
2 drivers on each side 24" diam.
Wheel base 54".

Engines, Boilers, Pumps, Wood Working Ma-
chinery and Machine Tools of every description
Send for complete Stock List.

WICKES BROTHERS,

—OFFICES—

808 Frick Building, Pittsburg, Pa.

ALSO

New York City. Chicago, Ill. Saginaw, Mich.

FOR SALE. BRIDGES.

1 50 ft. steel plate girder
bridge, double track.

1 500 ft., 4 spans 125 ft.
each, riveted pier bridge,
double track, 24 ft. wide.
Viaduct joining pier 570
ft. double track.

CARS.

73 80,000 lb. hopper
bottom ore cars.

100 tons 80-lb. Relaying
Steel Rails.

HENRY A. HITNER'S SONS,

Aramingo Ave. and Huntingdon St.

PHILADELPHIA, PA.

FOR SALE.

17 NEW 36" gauge 30,000
lbs. capacity

Flat Cars

For Prompt Shipment.

Kilby Locomotive & Machine Works,
ANNISTON, ALA.

Locomotives and Cars for Sale.

One 14-ton Baldwin, rear tank, standard gauge.
Three 20-ton American type Baldwins, air brakes,
36" gauge.
One 25-ton Heister geared, 36" gauge.
Five Climax logging cars, 36" gauge.
Steam shovels, hoisting engines, etc.

THE EDGAR S. LOW CO.

Empire Building, PITTSBURGH, PA.

ST. LOUIS' LARGEST SCRAP
IRON HOUSE.

Cohen-Schwartz Rail and Steel Co.

Head Office and Plant: Main & North Market Sts.
Branch Office and Yards: Foot of Mound St.

ST. LOUIS, MO.

Correspondence Solicited.

CONTRACTORS' MATERIAL, FOR SALE OR RENT.

One Marion style "A" shovel with 1½ yd. dipper.
One traction shovel, built in March, 1903, with 1½
yd. dipper, No. 594.
One Byers geared 36" gauge locomotive, weight
about 7 tons.
One 10x12 standard gauge Baldwin dummy type
locomotive.
One 7x12, 42" gauged, also 8x16, and other gauges.
Two traction engines, 18 H. P. each.
One traction engine, 12 H. P.
11 wheel scrapers No. 1, 4 No. 3.
5 Austin dump wagons, 1½ yd., iron axle.
150 picks, 150 shovels, Kirk battery, chains, tool
boxes, etc.; 12 36" gauge dump cars; 25 42"
gauge dump cars; 25 30" gauged flat cars.
Also a lot of other material too numerous to men-
tion. Correspondence solicited.

HAMPER MACHINERY CO.

Main Office, Park Row Bldg., New York.
Yards & Shops, Newark, N. J.

FOR SALE.

STANDARD GAUGE PRIVATE HORSE OR STOCK
CAR, adjustable stalls for carrying sixteen heads,
complete in every detail, in first-class condition.
BALDWIN STANDARD GAUGE DUMMY LOCOMO-
TIVE, 9x12. Has been thoroughly overhauled and
put in first-class condition.

Both of the above will be sold at a low price.

POULTERER & CO.

410 Builit Building, PHILADELPHIA, PA.

FOR SALE.

Two hundred and fifty tons of new forties; two
hundred and fifty tons new thirties; one 16" cyl.
Roger Locomotive, good condition; one 15" cyl.
Baldwin Locomotive, good condition; one 15-ton
stand. gauge Locomotive, for wood or iron rails;
two 28-ton 14" cyl. stand. gauge Locomotive, fine
condition. Apply

SABEL BROTHERS,

Jacksonville, Fla.

NEW STEEL RAILS.

We have a large quantity of steel, A.
S. C. E. section, various weights, with or
without fastenings, for immediate or
future delivery. Also have "seconds"
for sale.

G. W. DAVIS & CO., 68 Wall St., New York City.

RAILS.

LIGHT SECTIONS, 8 TO 40 POUND.

Special Price to Dealers.

UNION RAIL COMPANY,

Farmers Bank Building, PITTSBURGH.

FOR SALE.

300 tons 60½-lb. steel relaying rails with angle bars,
Alabama and Georgia delivery.
900 tons 70-lb. steel relaying rails with angle bars,
Ohio delivery.
500 tons 48-lb. steel relaying rails with angle bars,
Ohio delivery.

Second-hand locomotives, coaches, steam shovels,
and other railway and contracting material.

THE ISAAC JOSEPH IRON CO.

525-531 Hunt St., Cincinnati, Ohio
522-524 Monadnock Block, Chicago, Ills

R. S. ARMSTRONG & BRO.

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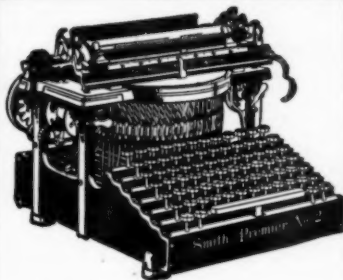
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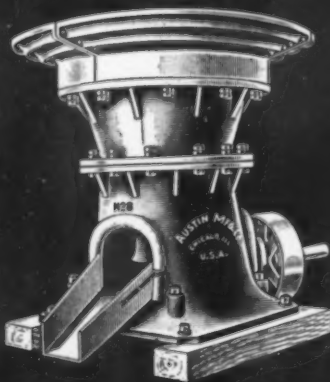
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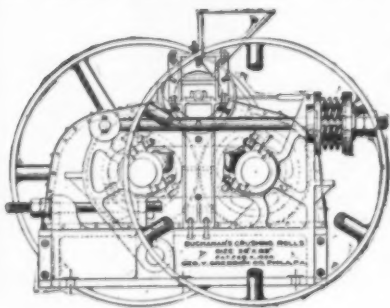


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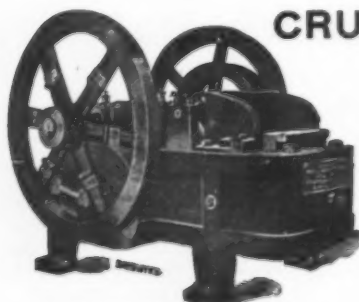
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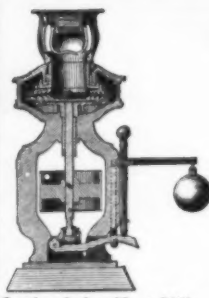
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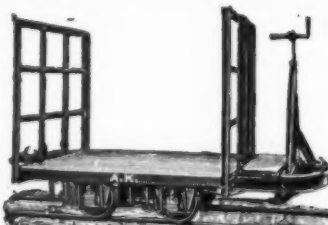
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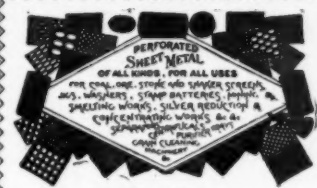
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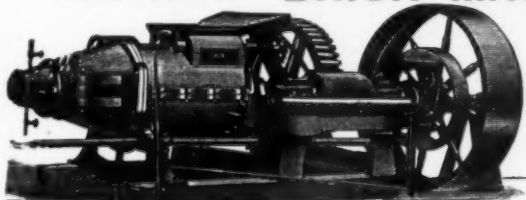
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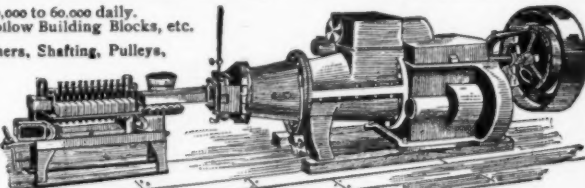
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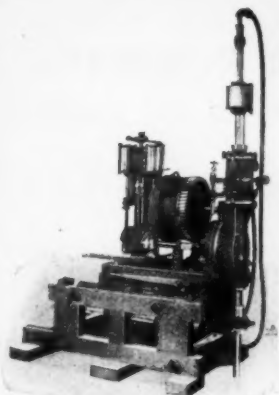
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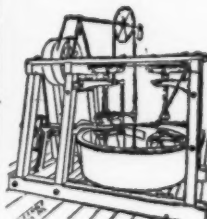
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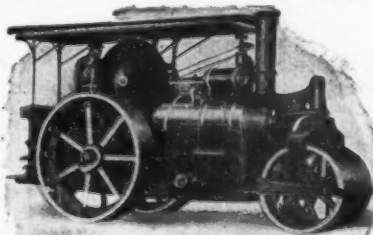
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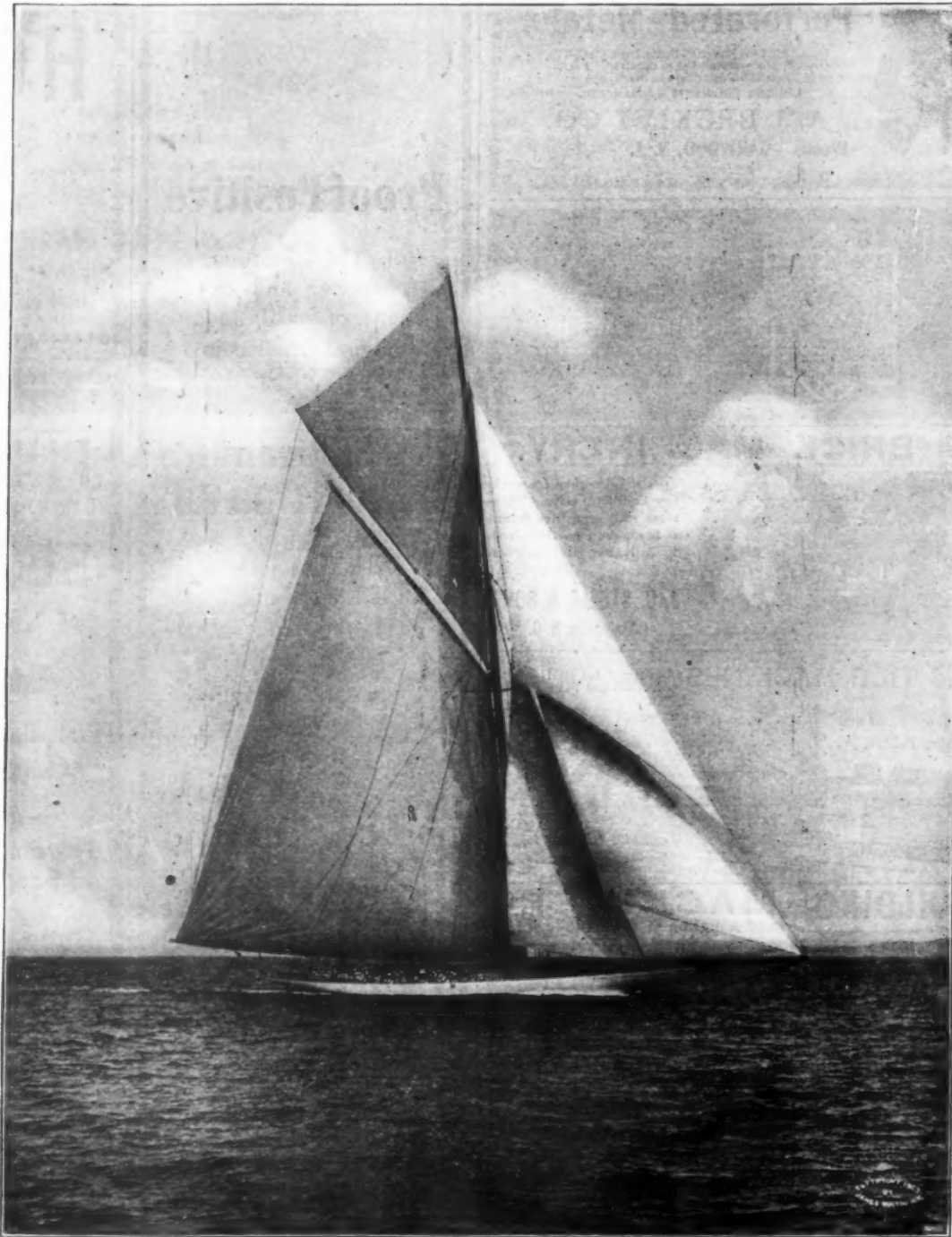
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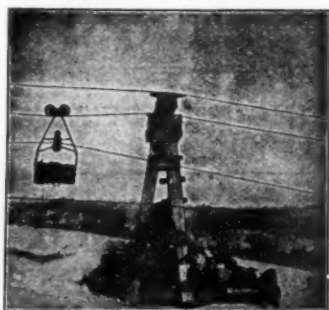
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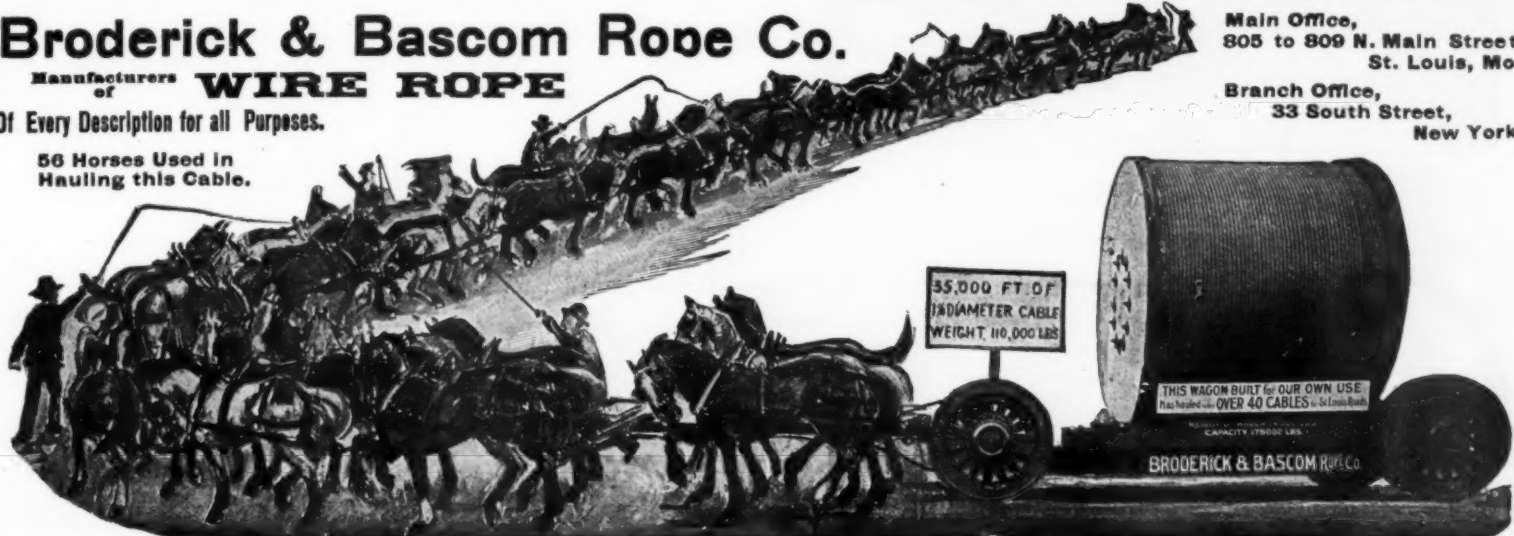
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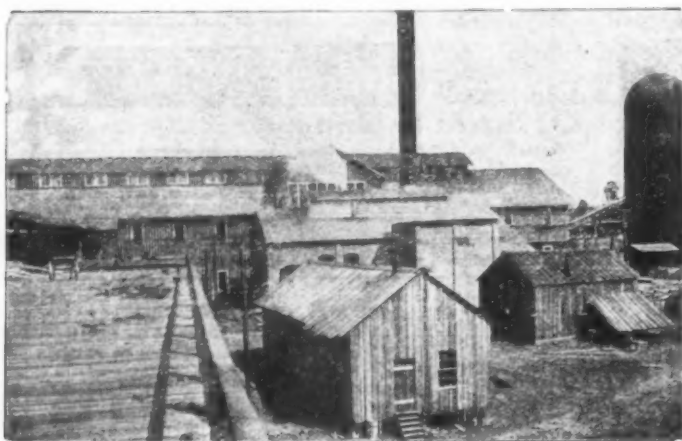
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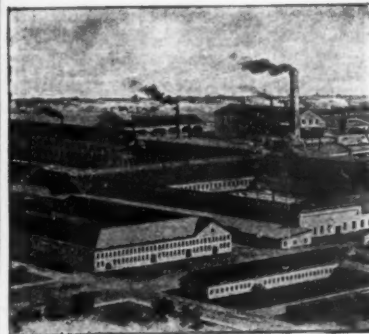
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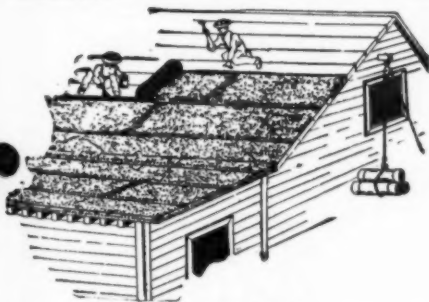
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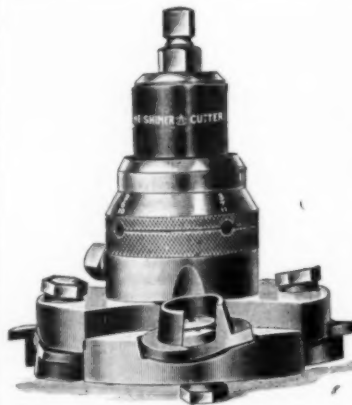
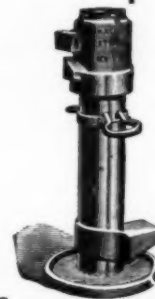
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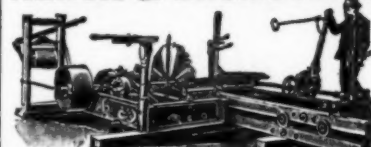
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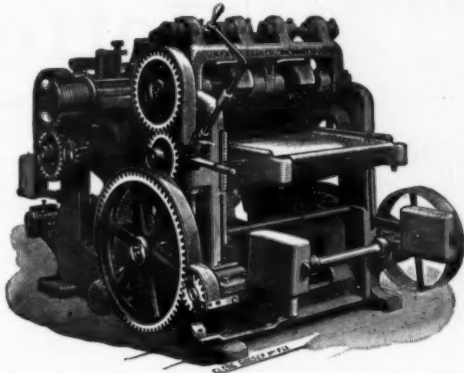
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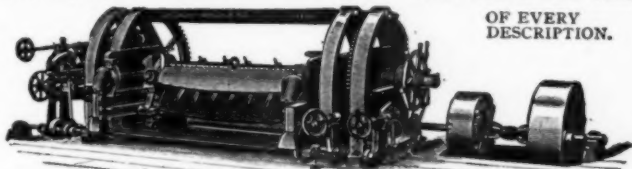


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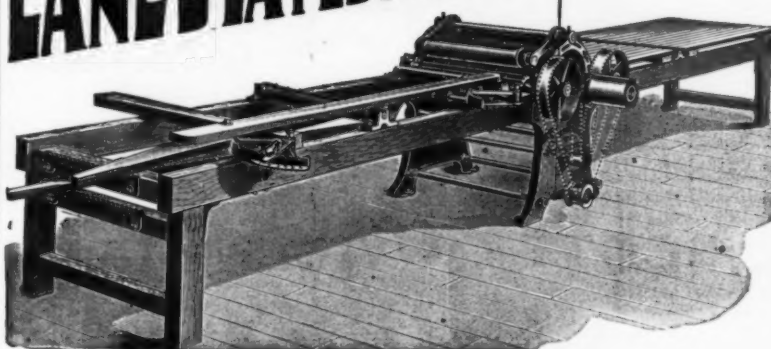
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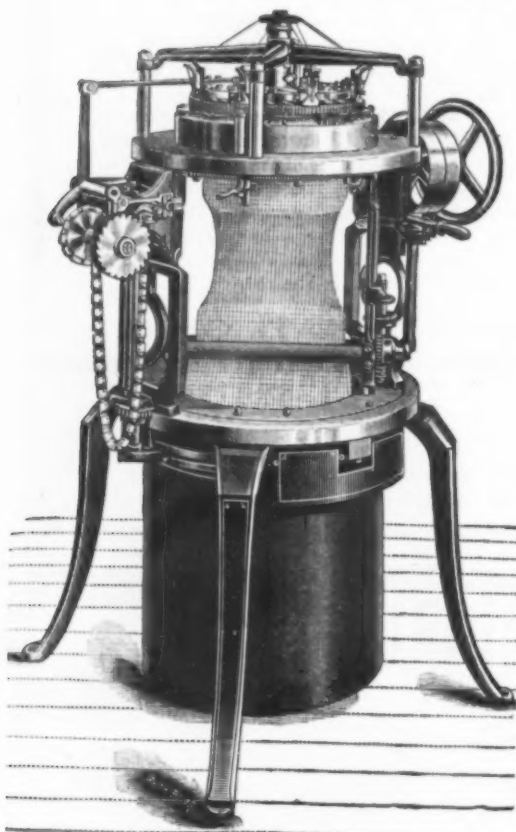
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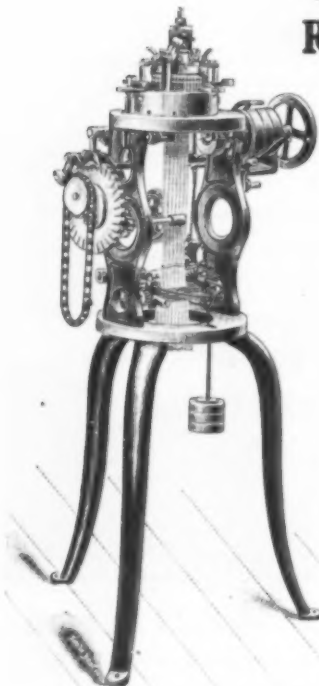
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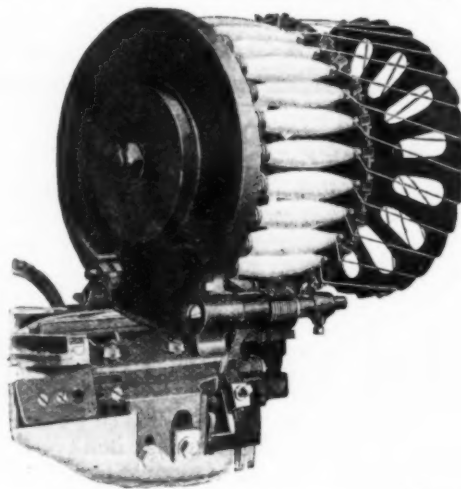
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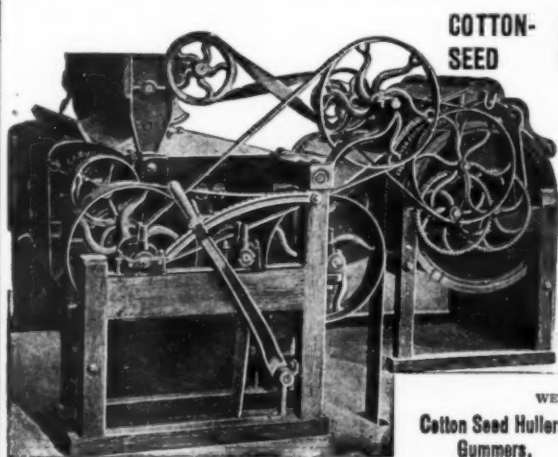
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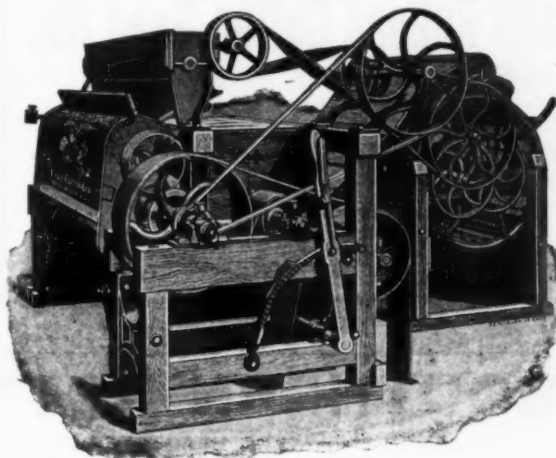
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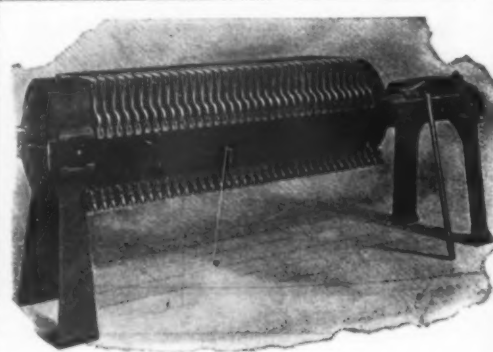
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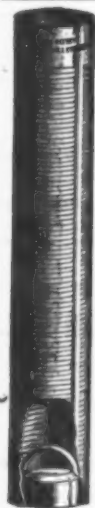
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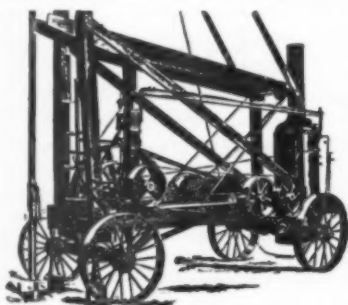
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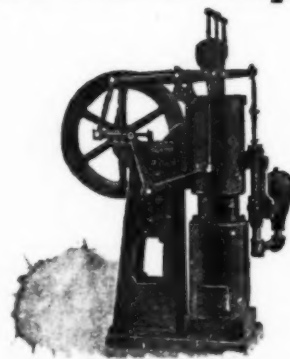
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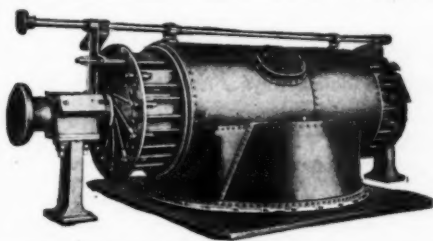
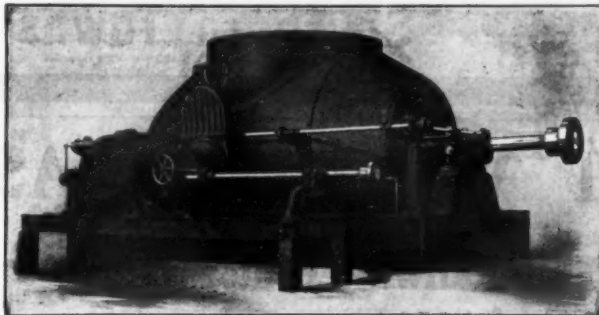
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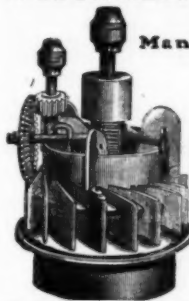
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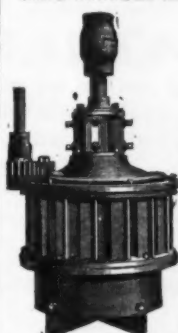
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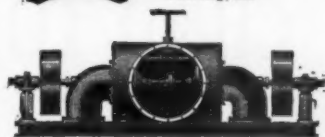
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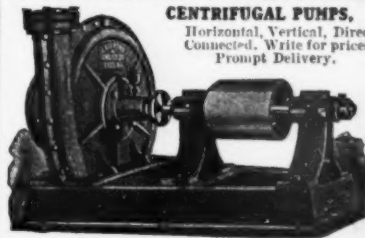
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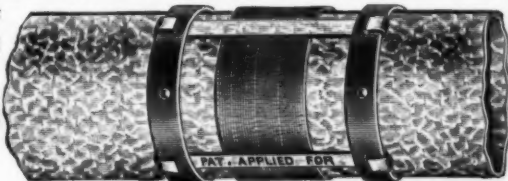
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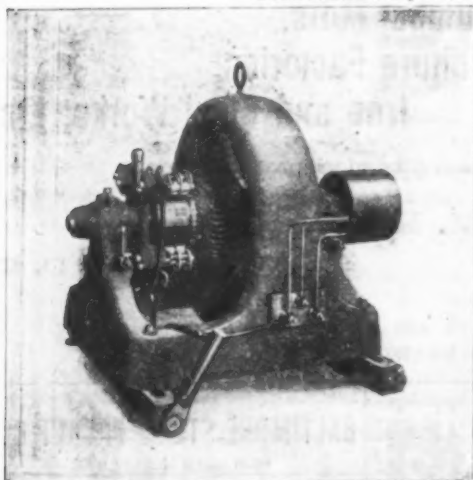
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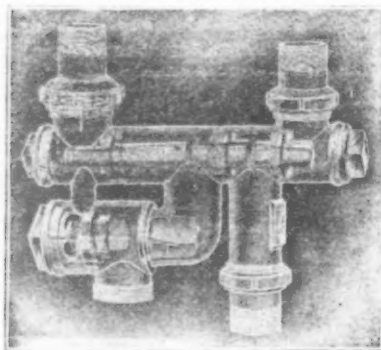
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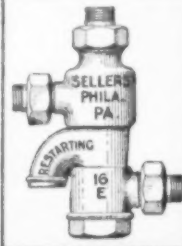
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